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FINANCE and DEVELOPMENT

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Assessing Mario Monti's legacy
Brazil's remarkable journey
Making aid smarter
Rajan on debt relief options

An illustration of a man with a large sack slung over his shoulder, walking up a terraced hillside. The sack is filled with colorful books. The hillside is planted with rows of green seedlings. The background shows a bright sun with rays breaking through a hazy sky. The man is wearing a light-colored long-sleeved shirt and blue jeans. The overall scene suggests a metaphorical journey of education and development.

Cultivating Minds

How investing in education boosts development



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Debt Relief and Growth: *Raghuram Rajan* explains how to craft an optimal debt relief proposal

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Five down, ten to go

IN 2000, THE GLOBAL community pledged at the UN Millennium Development Conference to achieve universal primary education (UPE) by 2015—one of eight goals that would represent a comprehensive reduction in global poverty. Five years later, only East Asia and the Pacific, and Latin America and the Caribbean are close to achieving the UPE goal, and sub-Saharan Africa, home to many of the world's poor, lags far behind. What's holding up progress? This issue of *F&D* takes stock of the enormous gains on the educational front over the past century and examines what needs to occur now for education for all to become a reality.

We begin with the results of a just finished multi-year project for the American Academy of Arts and Sciences on universal basic and secondary education. The project co-directors, Joel Cohen (Rockefeller and Columbia Universities) and David Bloom (Harvard University), consider the additional cost of reaching UPE by 2015—estimates range from \$6 billion to \$35 billion per year—not only affordable but essential for providing economic benefits, building strong societies and polities, and improving health. They also emphasize that reaching UPE is about a lot more than money: many of the chief obstacles lie in the political, cultural, informational, and organizational domains. And they insist this goal isn't ambitious enough. "The world should aim for, and can achieve, high-quality, universal secondary education, possibly by 2015 but certainly by the middle of the 21st century."

F&D's education issue also looks at the importance of achieving high-quality education for future economic and social gains—although the rate of uptake of well-established ways of improving schooling remains uncomfortably low. And we explore the successes emerging from India's quiet revolution in elementary education, the need for sub-Saharan Africa to shift its focus from increasing admissions to reducing dropout rates and improving learning outcomes, how policymakers can create budget space for social outlays and make these outlays efficient, how tertiary education can be funded, and how foreign aid can be made smarter. Several *F&D* contributors argue that aid must be given in cycles of 5–10 years, rather than 2–3 years, and suggest that adopting incentives based on results could boost aid's effectiveness.

* * * * *

In *Straight Talk*, IMF Chief Economist Raghuram Rajan tackles one of the hottest issues in international economic circles: how to craft an optimal debt relief proposal for low-income countries. He says that the proposals currently on the table have a one-size-fits-all flavor, but this is unfortunate because "one-size-fits-all proposals, while politically more convenient, are unlikely to benefit recipient countries as much as proposals that tie debt relief and additional aid to a country's specific situation"—such as whether the government is corrupt and whether it has access to private markets. Incidentally, his previous column on odious debt has generated some strong reactions: see our *Letters* section.

In *People in Economics*, we profile Mario Monti, an Italian professor and new think-tank head, who became a prominent European Union Competition Commissioner—known for his clashes with General Electric and Microsoft over issues of market power.

Laura Wallace
Editor-in-Chief



Dictators and debt: Let's clarify the rules

In "Odious or Just Malodorous" (December 2004), Raghuram Rajan discusses proposals to restrict odious debt such as the one we proposed in *F&D* two years ago ("Odious Debt," June 2002). Rajan raises the concern that as an unintended consequence of restricting loans to odious regimes, legitimate governments might also find it harder to borrow. If a legitimate government borrows and an odious regime subsequently takes power, under the new system the odious regime will be both less able and less interested in repaying the debt it inherited, he argues.

An odious regime will be less able to repay inherited debt if new loans are needed to fund ongoing and new projects that generate the country's cash flow. While we agree that countries often grow themselves out of debt, it seems unlikely that odious regimes are really borrowing for this purpose. It would have to be the case that both being able to borrow enabled a dictator to expand the economy and, crucially, that the dictator spent the gains for the benefit of the country. If borrowing by a dictator is indeed in the interests of the citizens, we agree that it should not be blocked. The truly odious dictators, however, probably don't borrow to grow the economy and, in any case, don't pass the gains on to the people.

Rajan also points out that an odious regime will be less interested in repaying debt because it no longer has the carrot of being able to continue to borrow as long as it repays. One solution to this problem is to roll over the inherited debt until the next legitimate government comes to power. The country would still be responsible for paying the debt plus arrears, and the creditor would expect to receive payment in time.

Rajan is right to point out that, because there are many possible debt-market equilibria, we should be cautious of unintended consequences of a system that restricts odious debt. However, the benefits of eliminating odious debt are potentially enormous, so it would be unfortunate and premature for the proposal to be put in cold storage, as he suggests. If loans to odious regimes were restricted, people in poor countries would be saddled with less debt. Their rulers would have less incentive and ability to misspend. And there is another potential benefit: legitimate governments could find it *easier* to borrow. Currently, there is a movement to nullify some debt on the grounds of odiousness, but it is hard for creditors to anticipate which loans will be considered odious in the future. If the rules of the game were known in advance, lending to legitimate governments would be less risky and interest rates for legitimate governments would fall.

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IMF should back, not belittle, odious debt regime

In his haste to dismiss the international legal Doctrine of Odious Debts and my arguments in favor of it (www.cato.org/pubs/pas/pa-526es.html), Raghuram Rajan ("Odious or Just Malodorous," December 2004) missed the long legal history in which the doctrine's principles have been used to establish the responsibilities of creditors (or borrowers), and thus their rights to repayment (or repudiation). This time-honored legal principle holds that debts not used in the public interest are not legally enforceable: in 1898, the U.S. repudiated the "Cuban debts" after the Spanish-American War on the grounds that the money was spent contrary to the interests of the Cuban people; in 1919, the Reparation Commission refused to apportion debts under the Versailles Treaty to newly liberated Poland that had been incurred by the German and Prussian governments to colonize Poland; in 1923, Chief Justice Taft, sitting as arbitrator, ruled against the Royal Bank of Canada's claim to repayment for monies it lent to a Costa Rican dictator. The list of precedents goes on.

Not only is the doctrine well-rooted in international legal custom, it is also grounded in the rich jurisprudence of common and civil law: the principle of "unjust enrichment" undermines an odious creditor's rights to repayment and strengthens a legitimate creditor's rights to repayment; and the law of domestic agency governs the way in which agents can create legally binding obligations for those they represent, thus putting a dictator's creditor at risk.

The private sector has had no trouble grappling with the law and figuring out how to "odious debt-proof" its loans: in much lending and project finance today the lenders know the purpose of the loan and an elaborate set of representations and warranties binds the borrower. If a lender doesn't exercise the due diligence to establish whether the steel imported is used for cannons rather than cradles, or for guns to shoot innocent civilians rather than criminals, as Rajan warns, then I say, as the American commissioners to the Spanish-American War peace conference said: "The creditors, from the beginning, took the chances of the investment." Already, private sector financiers are careful to establish their due diligence and evidentiary basis to defend today's loans in future.

The IMF should champion this application of the rule of law, rather than disparage it. While an odious debt regime might not stop all dictators "in their tracks," it would stop many and it would isolate as pariahs those who survived by selling off their nation's assets. By giving creditors—public and private—an incentive to lend only for purposes that are transparent and of public benefit, the IMF would change the culture of international lending and reduce the moral hazard that has destabilized international finance for the past 60 years. It would also promote sound investment and growth, starve tyrants of

their ability to finance themselves against their people, and thus better serve the cause of world peace.

Patricia Adams

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and the Third World's Environmental Legacy
(London: Earthscan, 1991)*

Outsourcing: Enlightening demystification

Mary Amity and Shang-Jin Wei, in "Demystifying Outsourcing" (December 2004), provide a useful corrective to the hysteria that usually surrounds that topic. Their analysis of statistical data in the first part of the article is particularly illuminating and readers will be grateful for the lucid and balanced presentation of these facts.

In the section following the heading "U.S. and U.K. realities," it is presumably a lack of data that forces them into the subjunctive (could, would, is likely). Obviously this section will be strengthened when further data become available. Your readership is looking forward to their new working paper on service outsourcing, productivity, and employment growth, in which one hopes their case will be made with equal evidential cogency and expositional clarity.

Thank you for the enlightening demystification of this vexed economic challenge.



Kashmiri women work at a software services firm on the outskirts of Srinagar.

David Driscoll

Former IMF staff member

The authors respond:

We are delighted to see the continued strong interest in the topic of outsourcing and glad that we could make a small contribution to this important policy debate.

Our article highlights two main findings from our research. First, increases in service outsourcing in U.S. manufacturing and services sectors go hand in hand with greater labor productivity. Second, jobs are not being exported, on net, from industrial countries to developing countries. Thus, the evidence suggests that job losses in one industry are often offset by jobs created in other growing industries. Our analyses utilize industry level data for the United States and United Kingdom.

We welcome letters

Please send no more than 300 words to fanddletters@imf.org or to the Editor-in-Chief, *Finance & Development*, International Monetary Fund, Washington, D.C., 20431, USA. Letters may be edited.

We make a number of conjectures that need to be verified with further research. More specifically, we state that "when jobs in one sector are outsourced, other sectors could also be affected" through, for example, a lower cost of inputs. We are currently working on developing inter-industry outsourcing measures to see if this is indeed the case. For each industry i , we are constructing an outsourcing intensity measure of industries that supply inputs to industry. We will examine whether productivity is higher in industries that purchase inputs from outsourcing intensive industries.

We also raise another possible consequence of outsourcing, namely the possible change in the skill mix, which we are examining. We are collecting industry level data by different skill levels to see whether industries that are outsourcing intensive in services are becoming more or less skill intensive.

There are yet still other conjectures that cannot be verified without more detailed firm level data on employment and output, as well as details of which parts of the production stage have been outsourced to other countries. For example, in trying to explain the first result we say that it is "likely due to firms relocating their least efficient parts of production to cheaper destinations." We go on to say that "the increased efficiency could lead to higher production and expansion of employment in other lines of work." Unfortunately, we do not have the data to verify the statement. We hope future research by us or others could make progress.

In summary, many of the subjunctives (could, would, is likely) will be changed as additional research is completed. ■

EVENTS COMING UP IN 2005

July 1–5, Kobe, Japan

International Conference on AIDS in Asia and the Pacific

July 6–8, Gleneagles Hotel, Scotland

Group of Eight Summit

September 14–16, New York

UN Conference to assess Millennium Development Goals

September 23–25, Washington, D.C.

IMF and World Bank Annual Meetings

November 16–18, Tunis, Tunisia

World Summit on the Information Society

December 13–18, Hong Kong, China

World Trade Organization ministerial conference

Super Mario and the Temple of Learning

Jeremy Clift interviews **Professor Mario Monti**, the president of Italy's Bocconi University

"Jack Welch came face to face with his nemesis: a decorous, scholarly, eminently proper Italian named Mario Monti."

T.R. Reid in "The United States of Europe: the New Superpower and the End of American Supremacy."

MARIO Monti has something of the Harry Potter about him. Europe's bespectacled former antitrust tsar, who tamed Microsoft and humbled the head of one of America's biggest manufacturing corporations, has a gracious manner that masks an earnest zeal. Dubbed "Super Mario" by colleagues and the press, the neatly tailored Italian economics professor was transformed for many in Europe in 2001 into a hero for standing up to "Neutron" Jack Welch, the straight-talking chairman of U.S. conglomerate General Electric (GE). Monti, then Europe's Competition Commissioner, torpedoed the proposed \$42 billion merger between GE and Honeywell, two of America's industrial titans, in a move that symbolized Europe's growing regulatory and market power.

Now, the 62-year-old monetary economist, who admits to being "a bit of a shy guy," is carving out a fresh sphere of influence as head of a new European think tank called *Bruegel*, named after the Flemish family of painters—although it is also an acronym for "The Brussels European and Global Economic Laboratory." One of Pieter Bruegel the Elder's most famous paintings is the *Tower of Babel*, but that is not what Monti had in mind when he proposed the name. "What strikes me very much is that what one sees in Bruegel's paintings is the interaction among people and also those market scenes of Flanders in the 16th century. So I see him as fully attentive both to human interaction and as an observer of markets."

The son of a banker, Monti grew up in the shadow of World War II. Long an advocate of free markets and a unified Europe, he influenced a generation of European economists while holding a series of academic positions in Italy. The Yale-trained professor, who studied under James Tobin and is currently president of Bocconi University in Milan, has always been a bit of a maverick. During a period in the 1970s when Italy did not publish official money supply figures, Monti came out with his own quarterly estimates that became known as the "Monti M1"

and the "Monti M2," eventually prompting the publication of official numbers.

Said by the *Economist* to have a "formidable combination of charm, intelligence, and an ability to be polite even when he is being stubborn," Monti held two high-profile jobs in the European Commission, first as Commissioner for the Internal Market, Financial Services, and Financial Integration during 1995–99 and then as Commissioner for Competition until late 2004, giving him a chance to put some of his economic theory into practice.

He says that he has "always loved politics, but always hated party politics," leading him to turn down a series of offers of cabinet jobs in Rome. But he did not hesitate when he was offered the job at the European Commission because that was a way to be involved in politics without a party affiliation. He also believed that European integration was the key to modernizing both the Italian economy and many others in Europe. "So the idea of having some policy responsibility in the body which I saw as the engine of European integration was irresistible," he says with a chuckle.

He has been called "politically tone-deaf" by *Institutional Investor* magazine. But this may be one of his greatest strengths as he has frequently defied political pressure. In 1999, he refused to bend after deciding that duty-free sales of alcohol and tobacco to tourists traveling within the European Union (EU) should be scrapped, standing up to intense lobbying by politicians and retailers for a reprieve for the popular tax break. "It is this independence that has commanded considerable respect from national competition authorities, lawyers, and business," says Margaret Bloom, a visiting professor in the School of Law at King's College, London, in an assessment published in *Competition Policy International*. "Commissioner Monti also maintained a very dignified approach in the face of heavy—and arguably, one-sided—press criticism of some decisions," she adds.

Embarrassing reversals

It was his role as antitrust tsar that attracted the most attention. After a series of three embarrassing reversals at the hands of the courts, Monti introduced major changes in the way competition policy is enforced in the EU. Lawyer Nicholas Levy says that Monti surprised even his harshest critics. "His response to the trilogy of judgments defined his tenure as



Monti explaining in July 2001 the decision to block the GE-Honeywell merger.

Commissioner, served as a catalyst for change, and formed the basis for his legacy,” says Levy, who is an expert on European merger regulation.

The three reversals took place in 2002 when the European Court of First Instance threw out rulings by the European Commission that banned Airtours, the British package holiday company, from taking over rival First Choice, and blocked the takeover of Legrand by its fellow French electricity company Schneider Electric. The court also overturned a ruling against Tetra Laval, the Swedish packaging maker, acquiring Sidel, the French plastics company. The judgments were a turning point for Monti, who had started out determined to expand and develop antitrust and competition rules within the EU. Having conceded that “our record in the merger area is less glorious after these court rulings,” Monti implemented a series of reforms that widened the test for anti-competitive behavior, made procedures more flexible and transparent, and established stronger internal policies. He promoted economic analysis in merger reviews, appointing the first chief economist under the Directorate-General for Competition (DG COMP) (see box). And he cracked down strongly on cartels and modernized EU competition law, introducing new regulations and hitting companies with big fines.

But his biggest test came with the proposed merger of General Electric and Honeywell. His ruling blocking the merger put him on a collision course with U.S. regulators who had already approved it, and subjected him to widespread criticism from U.S. politicians, media, and business leaders. Then U.S. Treasury Secretary Paul O’Neill called the decision “off the wall,” while some antitrust experts said it was based on faulty analysis.

In deciding to block the merger, the EU relied on two theories of competitive harm. First it found that the merger would strengthen GE’s already dominant position in the market for large jet engines. Second, it found that the merger would enable Honeywell, backed by financing from GE

Capital, to gain a dominant position in the small engine, avionics, and non-avionics markets in which it competes.

The spat highlighted the possibly divergent views between the EU and the United States about the role of regulation and markets. “In the United States, we have much greater faith in markets than we do in regulators. Some commentators have suggested that, by contrast, the European Union comes from a more statist tradition that places greater confidence in the utility of government intervention in markets,” said Deborah Platt Majoras, the U.S. Deputy Assistant Attorney General in comments about the GE-Honeywell case.

For Welch, it tarnished his swan song. “It was never a personal battle between Commissioner Monti and myself,”

Seeing competition through an economic lens

Monti is credited with strengthening the role of economic analysis in EU competition enforcement, a field mostly dominated by lawyers. In September 2003, he appointed Lars-Hendrik Röller, a former professor at Humboldt University in Berlin, as the first chief economist in the Competition Directorate. Economics can play a critical role in assessing, for example, whether a merger between two companies could result in greater efficiencies that would benefit consumers, or give the merged company such control of a market that consumers would ultimately lose.

Röller, an empirical economist, now has a team of 10 economists working for him. But critics imply that this is too few—after all, the U.S. Federal Trade Commission and the U.S. Department of Justice’s Antitrust Division have a combined staff of at least 100 economists working on antitrust. “Given that the EU and U.S. economies are of similar size and most significant mergers are noticed in both jurisdictions, the Chief Economist’s Office at DG COMP would appear to be rather understaffed,” commented David Evans and Carsten Grave in an article assessing the changing role of economics in competition policy under Monti (Evans and Grave, 2005).

he said in his autobiography. "He and I always had cordial dealings and our teams made many efforts to overcome our differences. Unfortunately, we were operating under a set of rules that allowed the Commission to function as both the opposing team and the umpire."

Monti argues that GE-Honeywell is an exception that masks a large increase in transatlantic cooperation over the past five years. The EU was also heavily involved in setting up the International Competition Network, a forum for more than 80 competition agencies around the world. And although the EU and the U.S. Department of Justice took divergent paths on Microsoft, Monti says the differences are understandable. "We had consulted with great frequency and depth with our American colleagues. We have come to different conclusions, but that should not surprise too much," he suggests, arguing that even different U.S. administrations had taken different approaches to the software giant. Accusing Microsoft of antitrust violations, the EU Commission last year fined the company a record \$650 million and ordered it to unbundle its Windows operating system from its media player. Microsoft is appealing.

In addition to making the EU what he calls "an engine for international cooperation on antitrust," Monti is also proud that he helped secure a strong place for competition policy in the new European constitution. "There was a serious threat to the powers of the European Commission in the area of competition. There were ideas of setting up a separate competition agency. There was a serious attempt by many member states to dilute the EU's and the Commission's power in state aid control. I have spared no efforts to work with the members of the convention, and to lobby the constitutional process, so that competition would come out fully safeguarded. And, in fact, there has been even some enhancing of the position of competition in the new constitution," Monti says.

Despite some accusations that the EU has used competition policy to buttress European competitors to American companies, Monti rejects this, saying that the "beauty of a serious enforcement of competition policy is that it's blind to nationalities." He points to a string of decisions that have blocked mergers within the EU—for example, Volvo-Scania and Schneider-Legrand. The European Commission also levied large fines to penalize illegal subsidies. Shortly before Monti stepped down, the Commission ordered seven German regional public banks to repay more than 3 billion euros in illegal subsidies they received from their regional governments in the 1990s. The ruling ended a decade-long battle between Germany's cosseted Landesbanken and the EU's executive arm that was seen as a major front in the Commission's campaign to stamp out protectionism and build a single European market based on liberal economic values. "These decisions close a very long and painful dispute between private and public banks in Germany, thereby creating a level playing field in the sector," said Monti.

Brainstorming for Europe

Although his term at the Commission has ended, Monti will continue to influence European policy through *Bruegel*, the

new Brussels think tank, managed by reputed French economist Jean Pisani-Ferry, a professor at Université Paris-Dauphine and former executive president of the French Council of Economic Analysis. *Bruegel* will focus on the economic challenges and global responsibilities facing Europe in the context of globalization. It is backed by 20 European and international companies and 12 European governments. The board is chaired by Monti, who has experience in setting up two other economic institutes in Italy. The think tank will focus initially on three areas of research: macroeconomics and international finance; markets and regulation; and trade, migration, and development.

Bruegel plans to build relationships with other well-known institutes. Monti cites in particular the Institute for International Economics in Washington, where he is a member of the board of directors. "Fred Bergsten's IIE is a highly-respected world model for any center doing work in international economics," says Monti. *Bruegel* was established on the suggestion of French President Jacques Chirac and German Chancellor Gerhard Schröder who felt that Europe needed a fresh approach to such issues as trade, open markets, migration, and development. Some observers argue that the EU has been built on a grand vision, but after last year's "big bang" enlargement to 25 members, it is in danger of becoming too inward-looking.

Bruegel's focus will be on the EU's potential role as a global player. One of Monti's pet themes is that Europe is well-placed to shape the institutions of globalization because of its experience at the European level of building new institutions of governance and policy coordination. Europe's experience with cross-border integration has given it unparalleled knowledge about how to manage the process of globalization. "Europe has achieved a type of globalization process, albeit only on a continental scale," Monti states. Its input is essential, he argues, because otherwise globalization may face a backlash if it is driven "by one political superpower, and a small and declining (because of mergers) number of large multinational corporations." The governance of globalization has to be multilateral and Europe should play an important role. "Of course, not in an antagonistic way vis-à-vis the United States, but in a context where the U.S. understands that it badly needs this contribution of Europe to make globalization more acceptable."

At the same time, however, he notes that Europe badly needs more growth, productivity, and competitiveness or it will lack the requisite muscle and authority to play this global role. "That's why I believe Europe, to help drive forward a governed globalization, alongside the United States in particular, has to become more like the U.S. in its own domestic economic structures, and this means, of course, more flexible markets and, well, the Lisbon agenda basically."

The Lisbon agenda, agreed by the EU in 2000, is shorthand for a series of ambitious reforms designed to make the European Union "the most dynamic and competitive knowledge-based economy in the world" by 2010. But compared with the United States, the European economy in fact remains sluggish. Both the European Commission and IMF staff forecast growth in the euro zone this year at 1.6 percent, down from 2.0 percent in 2004 partly because of higher oil prices, with



Bruegel: a keen student of markets.

unemployment remaining high, at 8¾ percent of the workforce. U.S. GDP growth, in contrast, is projected by the IMF at 3.6 percent, with unemployment of 5¼ percent.

Monti believes that one way of making sure that Europe starts to improve its competitive position is by putting pressure on countries that fall short of delivering commitments on the Lisbon strategy. For Monti, publishing a list of laggards is one way of applying pressure. “My hope is that the periodic reports that the European Commission will now have to publish will bring about some degree of naming and shaming,” he asserts.

In other vital fields, however, Monti believes the EU has made spectacular progress. “Europe has achieved four fundamental transformations that have taken a lot of energy—the single market, the single currency, enlargement, and drafting the new constitution. Accomplishing this in just 10 years is an amazing achievement, which, of course, may well have damaged growth in the short term.”

Although Europe looks bad in comparison with the United States on growth, productivity, and competitiveness, he argues that the EU is actually in a better position now than it was to establish long-term growth. “Ten years ago, the U.S. had a single market, a single currency, a constitution, and its enlargement toward the west had taken place a long time ago. The EU did not; now it has all four things. And don’t forget that the brilliant U.S. performance rests to some extent on a couple of dangerous deficits.”

Even so, a critical issue remains: the ratification of the new European constitution. Monti believes that rejection of the proposed constitution would herald a period of fundamental uncertainty in Europe that could deter investment and undermine business confidence, as well as make it more difficult to streamline decision making.

Strong legacy

Monti argues that competition policy is a crucial part of this emerging new global governance infrastructure. His role in

helping establish stronger links between global competition authorities is an important part of his legacy. Competition policy, he says, has to be enforced with equal vigor in relation to both business and governments. “That means an equal rigor and determination concerning cartels and abuses of dominance by companies, but also concerning controls on state aid to companies.”

How effective he was may be a little soon to judge. “Commissioner Monti’s tenure will be remembered as a period of controversy and change,” says Levy. The durability of his legacy “will be determined by his successors’ commitment to implementing the letter and spirit of the reforms instituted at his initiative.” William Kolasky, a U.S. lawyer who specializes in international antitrust issues, argues that Monti moved the EU closer to a U.S. model for competition policy. “Central to Commissioner Monti’s success in the implementation of [his] reforms—from the U.S. perspective at least—has been that he has fully embraced a consumer welfare standard for competition enforcement,” says Kolasky. But the EU remains too worried about mergers between conglomerates. “Greater faith should be placed in the competitive process rather than worrying about competitors who may be less efficient than the merged entity,” he argues.

Monti’s three roles as an economist—teacher, policy-maker, and commentator—have given him a lot of inner satisfaction. Many of his students now occupy prominent positions in economics, and he achieved considerable influence as an economic commentator in the pages of the Italian newspaper *Corriere della Sera*. But Monti admits that being Competition Commissioner gave him a thrill. “I cannot deny that being in charge of competition policy involves enormous tension because you have instruments to influence the real world there, but it’s a very, very challenging thing to do.” ■

Jeremy Clift is a Senior Editor on the staff of Finance & Development.

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Cultivating Minds

Joel E. Cohen and David E. Bloom

OVER the past century, three approaches have been advocated to escape the consequences of widespread poverty, rapid population growth, environmental problems, and social injustices. The *bigger pie* approach says: use technology to produce more and alleviate shortages. The *fewer forks* approach says: make contraception and reproductive health care available to eliminate unwanted fertility and slow population growth. The *better manners* approach says: eliminate violence and corruption; improve trade, the operation of markets, and government provision of public goods; reduce the unwanted aftereffects of consumption, such as environmental damage; and achieve greater social and political equity between young and old, male and female, rich and poor (Cohen, 1995).

Providing all the world's children with a high-quality primary and secondary education, whether through formal schooling or by alternative means, could, in principle, support all three of these approaches. Education provides economic benefits (see "Why Quality Matters in Education" on page 15 of this issue), builds strong societies and polities, and improves health. It is also a widely accepted humanitarian obligation and an internationally mandated human right.

The good news is that over the past century, access to education has increased enormously, illiteracy has fallen dramatically, and a higher proportion of people are completing primary, secondary, or tertiary education than ever before. But huge problems remain. About 115 million children of primary school age are not

currently enrolled in school. Most are illiterate and live in absolute poverty; the majority are female. Some 264 million children of secondary school age are not currently enrolled. Large educational disparities exist within and between countries. The quality of schooling is often very low. Moreover, demographic projections suggest that developing countries will have 80 million more children of primary and secondary school age (typically 6–17 years old) by 2025 than now—an increase of 6 percent to 1.35 billion.

In 1990, the global community pledged at the World Conference on Education for All in Jomtien, Thailand, to achieve universal primary education (UPE) and greatly reduce illiteracy by 2000. In 2000, when these goals had not been met, it repeated the pledge, this time at the World Education Forum in Dakar, Senegal, with a target date of 2015. The UN Millennium Development Conference in 2000 also adopted UPE by 2015 as one of its goals, along with the elimination of gender disparities in primary and secondary education by 2015. But even the modest UPE goal now looks unlikely to be achieved by 2015 at the current rate of progress. An estimated 335 million school-age children will be missing primary or secondary school in 2015; of these, an estimated 118 million will be absent from primary school. About one in five of these children will never enroll in or attend school.

Given this series of missed targets, what is feasible? Estimates are that UPE can be achieved by 2015 if the global community invests another \$6 billion to \$35 billion per year, on top of the approximately \$82 billion developing countries already spend each year

Educating all children well is not only urgent but also feasible within the next few decades

on primary education. This article argues that this sum is not only affordable but essential. It also argues that the UPE goal is not ambitious enough: the world should aim for, and can achieve, high-quality, universal secondary education, possibly by 2015 but certainly by the middle of the 21st century. The price tag for achieving this goal might be an additional \$27 billion to \$34 billion per year starting now, on top of the approximately \$93 billion developing countries already spend each year on secondary education. However, the obstacles are not just financial. Leaders need to devise and implement policies that will make educating children unquestionably worthwhile, in the eyes of parents and everyone else.

Education today

How is the global community doing in enrolling more children in school? Are educational data reliable and useful for international comparisons?

The good. Remarkable progress has been made in formal schooling over the past century, especially as measured by the primary gross enrollment ratio (GER)—the ratio of the number of children enrolled in primary education, regardless of age, to the population of the age group that corresponds to the nationally defined ages for primary schooling.

- In 1900, estimated primary GERs were below 40 percent in all regions except northwestern Europe, North America, and Anglophone regions of the Pacific, where the ratio was 72 percent (Williams, 1997). But by 2000, the estimated global primary net enrollment ratio (NER)—the ratio of the number of children in the official primary school age group enrolled in primary education to the population of the primary school age group—had reached 85 percent globally. The NER is a stricter standard than the GER, so the achievement is all the more remarkable.

- In developing countries, literacy tripled in the 20th century, from 25 percent to 75 percent, and the average years of schooling more than doubled between 1960 and 1990, increasing from 2.1 to 4.4 years (Bloom and Cohen, 2002). That figure has risen further since 1990.

- The number of students enrolled in secondary school increased tenfold in the past 50 years, roughly from 50 million to 500 million.

As for data quality, developing countries have begun to participate in international measurements of educational status in greater numbers. Even so, more statistical measures of schooling have been defined (for example, net and gross enrollment ratios, attendance rates, completion rates, average years of attainment, and school life expectancy) than are well supported by reliable, internationally comparable, and comprehensive data. The UNESCO Institute for Statistics, Montreal, maintains the highest-quality data (for example, UNESCO, 2000, 2004).

The bad. While progress is being made, colossal shortfalls remain.

- Roughly 380 million children are not enrolled in school (28 percent of the age group, typically 6–16).
- More than one-fourth of these children are absent from primary school (with the rest missing secondary school).

- Of school-age children who enter primary school in developing countries, more than one in four drops out before attaining literacy (World Bank, 2002).

Moreover, enrollment does not necessarily mean attendance, attendance does not necessarily mean receiving an education, and receiving an education does not necessarily mean receiving a good education. Thus the high enrollment ratios may give the mistaken impression that a high proportion of school-age children is being well educated. Some 75–95 percent of the world’s children live in countries where the quality of education lags behind—most often far behind—the average of industrial countries, as measured by standardized test scores. That standard may not be universally appropriate. However, it is uncontested that educational quality is too often poor.

On the data front, indicators of educational quality are scarce. Though participation in international and regional assessments of educational quality has increased, countries most in need of improvements are least likely to participate.

The ugly. Gross disparities in education separate regions, income groups, and genders.

- The populations farthest from achieving UPE are typically the world’s poorest. In sub-Saharan Africa, the primary NER is only 63 percent—far below the 96 percent in Latin America and the Caribbean (see Table 1).

- Girls’ education falls short of boys’ education in much of the world. While enrollment rates sometimes do not differ greatly, many more boys than girls complete schooling, especially at the primary level.

A systematic global analysis remains to be done, region by region, of how much gender, urban or rural residence, and high or low income contribute to differences in children’s educational opportunities and achievements, but we know they interact. In India in 1992–93, for example, the enrollment rate of boys ages 6–14 exceeded that of girls by 2.5 percentage points among children of the richest households; the difference in favor of boys was 24 percentage points among children from poor households (Filmer, 2000). Girls are

Table 1

Joining school

Net primary enrollment ratios have advanced in most of the developing world but remain low in sub-Saharan Africa.

	1990	1998	2002
World	82	84	85
Countries in transition	89	85	89
Developed countries	96	97	96
Developing countries	80	82	83
Arab states	75	78	83
Central and Eastern Europe	90	87	89
Central Asia	85	89	90
East Asia and the Pacific	96	96	92
Latin America and the Caribbean	86	94	96
North America and Western Europe	97	96	95
South and West Asia	73	79	83
Sub-Saharan Africa	55	56	63

Source: UNESCO Institute for Statistics.

Note: Net primary enrollment ratio (in percent) is defined as the ratio of the number of children in the official primary school age group enrolled in primary education to the population of the primary school age group.

more disadvantaged relative to boys in poor homes. The boys from rich households had enrollment rates 34 percentage points higher than those of boys from poor households; the gap in favor of rich girls compared with poor girls was 55.4 percentage points. Wealth gaps in enrollment greatly exceeded gender gaps in enrollment.

Spending on primary education varies widely among developing countries, ranging from \$46 per student per year in South Asia and \$68 in sub-Saharan Africa to \$878 in Eastern Europe and Central Asia (see Table 2). Spending per student in secondary education shows a similar disparity, ranging from \$117 per student per year in South Asia and \$257 in sub-Saharan Africa to \$577 in Latin America and the Caribbean.

More money for education usually results in better education, but exceptions to this pattern are informative. A 2001 study of Latin American primary education showed that Cuba led in test scores, completion rates, and literacy levels. The lowest fourth of Cuban students performed above the regional average in third and fourth grade mathematics and language achievement, although most nations of the hemisphere spent more public money per student than the less than \$1,000 spent in Cuba (Marquis, 2001). This example suggests that policymakers, who are acutely aware of the competing demands on resources, might do well to investigate how some countries have achieved so much with only modest funds.

Financial obstacles

What would it cost to achieve both universal primary and secondary education? At best, crude estimates are available, but the combined total falls between \$34 billion and \$69 billion per year (see Box 1). This is a huge amount of money, but certainly not beyond the ability of the world to fund. If investments in education promote economic growth in the poorer countries as anticipated, the share of income devoted to primary and secondary education should decline.

How much could countries afford to spend? The World Bank estimates that the low-income countries, with a population of about 2.4 billion, had a combined gross national income (GNI) of almost \$1 trillion in 2000 (with an average annual per capita income of \$410). The incremental cost of

\$34 billion–\$69 billion per year would be 3–7 percent of their GNI, assuming they shouldered the entire incremental burden without any external help. The low- and middle-income countries, with a population of nearly 5.1 billion, had a combined GNI of nearly \$6 trillion (with an average annual per capita income of \$1,160). The incremental cost for them would be about 0.6–1.2 percent of their GNI.

Of course, if the richer countries shared the cost, the burden on the poorer countries would be less. The GNI of the high-income countries was \$25.5 trillion—out of the entire world’s \$31.5 trillion—so an extra \$70 billion per year would be less than 0.3 percent of their income. Official development assistance (ODA) in 2003 was \$69 billion, the highest ever in

Box 1

Putting a price tag on education for all

Assuming education will be delivered largely through schools, educating all children will require additional money for schools, teachers, teacher training, materials and equipment, administration, assessments, randomized evaluations, and overcoming economic disincentives to families.

To achieve universal *primary* education (UPE) by 2015, the World Bank, UNICEF, and UNESCO have estimated the annual costs at between \$9.1 billion and \$35 billion per year, although a recent detailed Bank study suggests that the price tag might be as low as \$6.5 billion per year. These investigations focus on the cost of increasing the number of places for students in schools. However, the number of places available is often not the limiting factor. Future cost estimates should reckon the cost of providing other improvements necessary to encourage students to attend school—such as meals, tuition subsidies to families, improvements in the quality and reliability of teaching, and reductions in rates of repetition and non-completion. In other words, the true cost of UPE will include the cost of implementing policies to boost the demand for primary education, and current estimates overlook this cost.

To achieve universal *secondary* education, the cost will be greater than that for UPE because more children in this age bracket are not in school and secondary education is more expensive per pupil. If a gradual approach is taken between now and 2015, the annual additional cost would likely be between \$27 billion and \$34 billion. If an instantaneous expansion of secondary education is sought, a recent pioneering study suggests that the cost would be \$28 billion to \$62 billion annually, at least under current policies (Binder, 2005). But this cost could fall to \$47 billion if policymakers adopted the practices of countries most successful in making schooling available to students, getting students to attend school, and helping them learn while they are in school. The best (albeit unlikely) scenario, including a sharp drop in repetition rates, would reduce the extra annual cost to \$28 billion. The biggest expansion of secondary education will be needed in the poorest countries, where the average per-student yearly cost is \$126, compared with \$244 in low-income countries and \$884 in upper-middle-income ones.

Table 2

Big disparities

Current expenditures on primary education vary widely.

Region	Public spending per student (dollars)	Total public spending (million dollars)	Percentage of population with public spending data ¹
South Asia	46	6,900	98
Sub-Saharan Africa	68	6,100	98
East Asia and Pacific	103	21,200	96
Latin America and the Caribbean	440	28,200	90
Middle East and North Africa	519	14,200	60
Eastern Europe and Central Asia	878	5,200	22
Developing world	151²	81,800	88²

Source: Glewwe and Zhao, 2005.

¹Public spending figures are more reliable in regions where public spending data are available for a higher fraction of the population.

²Averages weighted by number of pupils.

nominal and real terms. However, this amount was only 0.25 percent of donors' combined GNI. Moreover, it was well short of the average of 0.33 percent of ODA/GNI achieved in 1980–92 and of the United Nations' ODA target of 0.7 percent. Thus, the incremental cost of \$34 billion–\$69 billion per year could consume up to the entire pie of recent ODA.

As public funds are limited, it is natural to ask: Is education the best use of the marginal dollar of government expenditure in a developing country? Should that dollar be spent on education rather than health, physical infrastructure, or applied research? Unfortunately, we know no convincing answers to these questions, even if the “best use” is interpreted narrowly as economically most efficient. Credible models to evaluate the trade-offs for human well-being between education and other sectors of public investment appear to be lacking. The same fundamental lack of knowledge applies to the trade-offs between primary and secondary or higher education. However, the difficulty of achieving universal education is about a lot more than money.

Nonfinancial obstacles

What are the nonfinancial obstacles to achieving universal primary and secondary education? Studies show that they are economic, competitive, informational, political, cultural, and historical.

Economic disincentives. Millions of children have access to schooling but do not attend. One explanation is that their families value more the time these children spend in other activities, such as performing work for income or handling chores so other household members are free to work in market activities. A troubled household economic situation is more often a deterrent to enrollment than lack of access to a school. For example, a World Bank study in Ghana found that almost half of parents, when asked why their children were not in school, answered “school is too expensive” or “child needed to work at home.” Another 22 percent believed that education was of too little value. Lower market wages for women can make investing in schooling for boys before schooling for girls a rational economic decision for a family.

Competing demands. Education competes for scarce national resources with many worthy projects, such as building roads, providing medical care, and strengthening national defense. Limited resources can hamper educational expansion in many ways. Organized interest groups may divert funding from education to their own causes. When social crises, such as crime, unemployment, or civil war, demand the time and resources of the government, citizens may support channeling resources to remedy these crises rather than to education. A limited capacity to oversee the implementation of education programs and the limited status of education ministries within many governments may also pose problems. Competing demands from business and other employers may limit the supply of people qualified to be primary and secondary teachers.

Lack of information. Reliable, internationally comparable, useful data on many aspects of primary and secondary education are lacking. For example, the mechanisms that keep

children out of school are poorly understood in quantitative (as opposed to qualitative) detail. Most routine data focus on measures of “butts-in-seats” (in the expressive language of World Bank economist Lant Pritchett), such as enrollment, attendance, and completion. Political incentives sometimes work against accurate reporting. In Uganda, enrollment was historically underreported because schools were required to remit private tuition receipts to the government in proportion to the number of students they reported. When schools became publicly funded on the basis of enrolled pupils, the incentive for schools to report higher numbers resulted in a leap in official enrollments. Governments may also be reluctant to publish potentially unflattering data on their school systems for fear of political consequences.

Political obstacles. Politics may stymie educational expansion for other reasons. The long time horizon over which educational returns accrue greatly exceeds the short time horizon of political incumbents. When politicians devote funds to education, the funding sometimes flows to political supporters rather than to programs and regions where it is most needed.

Cultural barriers. Discrimination may inhibit educational participation, particularly for girls and for linguistic, religious, and ethnic minorities. Verbal and physical abuse; a lack of functional, secure toilets for girls; and long distances between home and school can deter parents from sending daughters to school. Where girls are expected to care for family members and to perform household chores, education may be seen as unnecessary. Girls' education may also be seen as a low priority if they leave their parents' household upon marriage.

Historical context. Past national models and motivations for education have been diverse. Solutions that ignore the history of education in a particular country are likely to be less effective than solutions tuned to context. Attempts to decentralize education in Latin American countries in the 1980s ignored the social and political purpose of using schooling to end severe socioeconomic segregation. Decentralization led to a growth of private schools and renewed fragmentation along socioeconomic lines, which exacerbated the social divide that school centralization was intended to correct.

Judging quality and effectiveness

Inadequate information about the quality of education complicates matters. Without it, quality is unlikely to improve, which, in turn, undercuts efforts to mobilize the money and motivation to achieve high-quality primary and secondary education. International assessments, which are largely based on OECD models, can be very useful but may not be optimal for all countries. For some countries, national assessments focused on country-specific curricula or regional approaches provide more relevant information—given that every assessment implies stated or unstated goals of education, and these goals are highly diverse.

Using educational assessments. When properly carried out, assessments allow individuals and communities to track the quality of schools and systems. If policymakers make information on educational quality in specific schools and

curricula available to the public, then students and parents may be better able to choose among educational options and demand education of higher quality. The Southern African Consortium for Monitoring Education Quality is a regional learning assessment study introduced by UNESCO and now governed by the 14 southern African participating governments. It aims to identify within-country disparities in education as a guide to where interventions might be needed.

Developing reliable and useful assessments requires institutional capacity, technical expertise, and money—all likely to be scarce in developing countries. Moreover, when assessments are tied to funding decisions, teachers, administrators, and state officials may oppose creating or releasing such data. Encouraging developing countries to participate in international assessments as “associates” (so that results need not be released internationally) will promote the generation of much-needed data, give access to expertise, and build local capacity to develop, administer, and analyze tests, while avoiding the political consequences of possible poor performance by participating countries.

Using randomized experiments. Many traditional practices in education have never been evaluated by scientific experimentation to measure quantitatively what they contribute to educational outcomes. Would students learn arithmetic or history less effectively if they were not required to be in their seats by the time the school bell rang? Few innovations in education have been rigorously compared with traditional practices. Does a student who learns touch typing from a computer learn any better, or at a significantly lower cost, than a student who learns from a traditional teacher or by self-instruction from a printed book?

A reliable means of getting answers to questions like these—namely, randomized controlled experimentation, the gold standard for evaluating treatments in medicine—is now finding use in education. Such experiments make possible valid comparisons among pedagogical techniques and systems of management because randomization establishes equivalent participant and nonparticipant groups for comparison. These experiments can, therefore, produce the most credible assessment of programs, including their cost-effectiveness (see Box 2).

Randomized evaluations are most powerful when applied narrowly to test isolated variations. Without a theory of why the program has the effect it has, generalizing from one well-executed randomized evaluation may be unwarranted. Similar questions about wider application arise no matter what evaluation technique is used. Given positive results from any evaluation of a key innovation, one useful step would be to encourage adapted replications of randomized evaluations in several different settings.

Unfortunately, randomized evaluations remain underutilized guides. Many people assume the reason for this is that these experiments are expensive and time consuming, and require technical sophistication to plan, implement, and analyze properly. But, in fact, they are no more expensive or time consuming than other rigorous data collection. More likely, they are underused because it can be politically difficult to

deliver a program to only a sample of students or schools while withholding it from a comparison group. However, when budgetary constraints make it difficult or impossible to reach all members of a population in a given year, randomly selecting which groups receive the program in year one, year two, and so on, may be the fairest way to implement the program and simultaneously permit measurements of its impact. Using randomized phase-ins addresses the trade-off between evaluating and scaling up programs.

Defining the goals. Assessments and evaluations presume goals for what education should accomplish. Who should decide educational goals? What relative weight should be given to the voices of parents, children, politicians, clerics, educational experts, leaders of business, labor and the community, and others? How should the weight attached to the views of different claimants for influence be decided? These questions need more public discussion and policy attention than they currently receive, and thus should be encouraged by governments and international organizations.

Proposed educational goals include reading, writing, and arithmetic; readiness for the local or global labor market; health knowledge and healthy behavior; the creation (or sustaining) of a more cohesive society; the capacity to adapt to ceaseless change and to learn under conditions of freedom; assisting youths to fulfill their physical, emotional, social, spir-

Box 2

Can deworming boost attendance?

For policymakers trying to figure out which educational programs are cost effective and which ones are not, there is growing evidence that randomized evaluations—long used in the medical field—provide valuable insights. Indeed, a recent study by Harvard University’s Michael Kremer reports that randomized evaluations of school-based health programs in Kenya for deworming and India for anemia show that simple and inexpensive health treatments can dramatically boost attendance (Kremer, 2004).

In western Kenya, the researchers evaluated a twice-yearly primary school deworming program that was phased in over several years. The researchers randomized the order in which schools were phased in to ensure statistically reliable comparisons between the schools with and those without the deworming program. They found that child health and school participation improved not only for treated students but also for untreated students at treatment schools and untreated students at nearby nontreatment schools due to reduced disease transmission. The direct effect of the deworming program, including within-school health spillovers, resulted in a 7.5 percent average gain in primary school participation in treatment schools and a reduction in absenteeism of at least 25 percent. When cross-school externalities were included, they found that deworming also resulted in a 2 percent average gain for pupils in nontreatment schools. They estimated that the cost per extra year of school participation was only \$3.50, making deworming an extremely cost-effective way of boosting attendance.

itual, and intellectual potential; providing the competencies children need for their lives and livelihoods; enabling students to interact in socially heterogeneous groups, act autonomously, and use tools; learning to know, to do, to live with others, and to be (Delors, 1998); addressing the needs of the world's poorest children and youth, those the global economy has left behind; promoting tolerance rather than hatred; and opening people's minds rather than controlling them.

Five changes needed

Universal, high-quality primary and secondary education is achievable by the middle of the 21st century. But at the current rate of progress, by 2015 roughly 118 million children of primary school age will still not be enrolled in primary education and 217 million of secondary school age will still not get a secondary education (16 percent and 30 percent of the relevant populations, respectively), according to our estimates. What is needed now? No single magic bullet will bring high-quality primary and secondary education to all the world's children. Rather, at least five complementary, interacting changes are needed:

- open discussions, nationally, regionally, and internationally, on what people want primary and secondary education to achieve—that is, the goals of education;
- a commitment to improving the effectiveness and economic efficiency of education in achieving those goals, whether through formal schooling or other means; this improvement should be driven by reliable data on what children learn; careful experiments with alternative pedagogical techniques and technologies; and comparative studies of the countries that perform best, region by region, within any given level of funding and material resources;

- a commitment to extending a full cycle of high-quality secondary education to all children;
- international recognition of the diverse character of educational systems in different countries, and adaptation of aid policies and educational assessment requirements to local contexts; and
- more money and higher priority for education—especially an increase in the absolute and relative amount of funding from rich countries for education in poor countries.

The goal of providing high-quality primary and secondary education to all the world's children is as inspiring and formidable a challenge as any extraterrestrial adventure—and far more likely to enrich and improve life on earth, even in ways that may be difficult to anticipate today. ■

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Why Quality Matters in

Education



Education can boost economic growth—but simply spending more money is seldom the answer

Eric A. Hanushek

the costs and benefits of school reform clearly shows investments that improve the quality of schools offer exceptional rewards to society. What is much less clear, however, is *how* to improve the quality of education.

Most studies of the economic aspects of education focus on school attainment, or the “quantity” of education. This appears logical from the perspective of both analysis and policy: the quantity of schooling is easily measured and readily tracked over time. But it distorts policies and potentially leads to bad decisions.

The policy challenges facing most countries at the beginning of the 21st century—including developing countries—are ones that have to do with *quality*, rather than quantity. Higher quality translates into greater earnings for individuals over their lifetime. Moreover, a society with a more educated labor force can also expect faster economic growth even if the returns may not be discernible for many years. Quality, defined here by measured mathematics and science skills, reflects a variety of factors—family inputs, health, schooling, and so forth. Of these, existing research suggests that the clearest way to improvement lies in strengthening schools. For those countries that stick to a path of real school quality improvement, investments in education have the potential to deliver truly large economic as well as social gains.

Economic well-being and growth

Economic growth determines how much improvement will occur in the overall standard of living of society. Differences in growth rates that seem small can make a huge difference if maintained over a period of time. Consider a medium-

IT IS DIFFICULT these days to ignore the message that education matters. Governments everywhere in the world have assumed a substantial role in educating their citizens, and “providing education for all” is a central pillar of the Millennium Development Goals. A variety of motivations lead societies to provide strong support for schooling. Some are purely economic, while others are driven by ideas of using education to improve political participation, social justice and, more generally, develop society.

The enthusiasm for promoting more education is well-warranted, but the fundamental question is how much society should invest, as public investment in education comes at the expense of other public and private investments. Analysis of

income country starting at \$6,000 in GDP per capita in 2000. Without any growth, GDP per capita will stagnate. But if that country finds a way to grow at just 0.5 percent each year, incomes would increase from \$6,000 to \$7,700 by 2050—an increase of almost a third. If it were to grow at 1 percent per year, it would reach almost \$10,000 in 2050. Small differences in growth rates have huge implications for the income and wealth of society. Indeed, the current economic position of the United States and other developed countries is largely the result of these countries' strong and steady growth over the second half of the 20th century.

While a variety of models and ideas have been developed to explain differences in growth rates across countries (see for instance Barro and Sala-i-Martin's 2003 evaluation), they invariably include—but are not limited to—the importance of human capital, which is enhanced by a strong education system. Education has the possibility of making both the individual receiving it and others better off. Specifically, a more educated society may lead to higher rates of innovation and invention, make everybody more productive by helping firms introduce new and better production methods, and lead to more rapid introduction of new technologies.

Past research into growth differences across countries has emphasized school attainment differences and has found them to be highly related to economic growth. But the quantity of schooling is a very crude measure of people's knowledge and cognitive skills. Moreover, the role school attainment plays in economic growth has become controversial. A large part of the controversy—and the resulting policy mistakes—revolves around a fixation on school attainment without explicit consideration of the quality of schooling (see box).

Good quality boosts growth

In an effort to shed light on the role that the quality of education plays in economic growth, Dennis Kimko and I studied international differences in mathematics and science knowledge, as evidenced by testing since the 1960s. We found that school quality indeed has a remarkable impact on differences in economic growth.

The analysis was very straightforward. All of the available earlier international test scores were formed into a single composite measure of quality and related to differences in growth rates across countries. The basic statistical model, which included the level of income, the quantity of schooling, and population growth rates, explained a substantial portion of the variation in national economic growth rates. But the quality of the labor force as measured by math and science scores also proved extremely important: one standard deviation difference on test performance was related to a 1 percent difference in annual per capita GDP growth rates. The impact of such a difference in growth rates is very large. One percentage point higher growth—say, 2 percent versus 1 percent per year—will over a 50-year period yield incomes that are 64 percent higher.

One common concern about this type of analysis is that schooling might not be the actual cause of growth but may

instead reflect other attributes of the economy that are beneficial to growth. To test this proposition, we investigated a number of other factors that might explain the relationship between the quality of education and growth, but ended up rejecting all of them. For example, the positive relationship does not seem simply to reflect the extraordinarily high growth over the

Does more schooling equal higher growth?

In recent years, a number of critics have questioned whether the quantity of schooling really is a driving force behind economic growth. Some argue that even though there might be a correlation between growth and school attainment, there may not be a causal relationship—growing countries may simply use a portion of their wealth to buy more schooling. Others insist the estimated effects of education on growth are sensitive to the parameters of the underlying statistical analysis, and that it is difficult to distinguish among alternative estimates. Still others argue that the underlying model assumptions lead to very different implications about the schooling–growth relationship. Finally, some point out that the estimates of the effect of schooling on growth differ significantly from what would be expected from the highly positive microeconomic relationship between individual earnings and schooling—possibly reflecting the failure to use education in socially productive ways.

While these studies raise legitimate concerns, their message should not be misinterpreted. First, commonly available measures of school attainment are likely to be very imperfect measures of the human capital that is relevant to growth. Several authors have shown that a number of the research anomalies disappear when measurement issues are dealt with. Moreover, these authors do not even directly address what is perhaps the most important measurement issue: variations in cognitive skills and measured quality that have been highlighted by recent tests show that the knowledge at a given level of schooling completion in some countries has virtually nothing in common with that in other countries. These measurement problems are reinforced by simple recognition that qualitative skills reflect more than just formal schooling, including family input, cultural norms, health, and other factors.

Second, human capital is important, but it is not the only thing that governs the functioning of an economy. There is no question that basic features such as a developed system of property rights, limits on the amount of governmental intrusion through taxes and regulations, and the openness of labor and product markets have an enormous impact. Pushing more school attainment on an economy unable to use it productively is unlikely to have positive effects.

What are the policy implications? Clearly, human capital can be built up by providing more schooling, but policies that fail to consider the quality of schooling risk expanding quantity without truly expanding human capital. Likewise, development policies that fail to take into account the overall structure of an economy are likely to expand school attainment with little measurable improvement.

1960–1990 period enjoyed by East Asian countries (which also consistently score very high on international tests but might have grown rapidly for other reasons). When the East Asian countries were excluded from the analysis, quality still showed a strong influence on growth. Nor is it just that the test measures are really a proxy for other attributes of the country, such as efficient market organizations. Among U.S. workers educated abroad, those from countries with higher math and science performance consistently performed better, thus precluding the possibility that it is simply something about the characteristics of the home country economies.

The strength of improved quality can be readily seen by calculating the economic impact that can be expected from quality improvements. Consider beginning a school improvement program in 2005 that ultimately proves successful. School reform of course takes time—it takes years before school graduates work their way into the labor force and make their impact felt. Chart 1 illustrates the impact reform could be expected to have over time if it is successful at achieving a moderately strong knowledge improvement (corresponding to a 0.5 standard deviation increase in test score achievement). The curves sketch the path of GDP improvement that would occur with a reform plan that reaches its school improvement goal within 10, 20, or 30 years. Consider just the slow improvement of schools over a 30-year period. In 2040, GDP would be almost 4 percent higher than projected without the schooling reforms. Of course, faster reforms would yield even greater gains in GDP.

How big would this “growth dividend” be? The horizontal dashed line indicates the typical level of national spending on education. If this moderately strong improvement in student skills could be obtained during a 20-year reform period, a country could expect to pay for *all of its educational expenditures* by 2040 with the growth dividend.

Research also links test scores directly to individual earnings and productivity: the better an individual performs on standardized tests, the more likely he or she is to earn a good salary. The earnings advantages associated with higher achievement on standardized tests are quite substantial in the United States and other developed countries. Three recent studies of U.S. labor markets undertaken respectively by Mulligan (University of Chicago), Murnane and colleagues (Harvard University), and Lazear (Stanford University) provide direct estimates of the effect of test performance on earnings. The studies, which are based on different, nationally representative data sets that follow students after they leave the education system and enter the labor force, provide remarkably similar estimates: one standard deviation increase (moving from the average of the distribution to the 84th percentile) in mathematics performance at the end of high school translates into 12 percent higher annual earnings—an earnings gain that can be expected across the entire working life of the individual. And there are reasons to believe that these estimates provide a lower bound on the effect of higher educational achievement.

A range of estimates for other countries support these findings. Although less frequently available, estimates out-

side the United States consistently show strong positive effects of measured quality on individual earnings. Moreover, where direct comparisons are possible, gains appear to be even larger for developing countries than for developed countries.

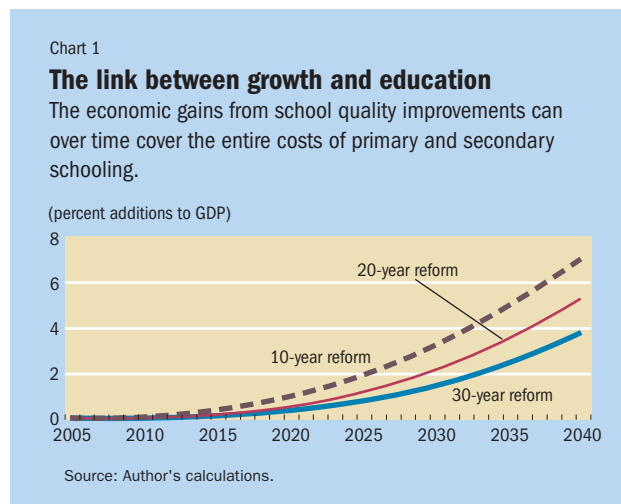
Additional returns to school quality also come through continuation in school. There is substantial U.S. evidence that students who do better in school, measured by scores on standardized achievement tests, tend to go farther in terms of educational attainment. Murnane and his colleagues separated the direct returns of measured skill from the indirect returns of more schooling and found that perhaps as much as one-third to one-half of the full return to higher achievement comes from further schooling. This effect of quality on school attainment, which is over and above the earnings impacts previously noted, is also evident in a number of other countries.

Thus, the findings that quality in education is directly linked to individual earning power and productivity are quite pervasive. Even in developing countries with relatively small manufacturing and skill-intensive service sectors, skills have been shown to have a strong impact on outcomes. While much of the quantitative research on the importance of skills has come mainly from developed countries, the qualitative picture accordingly appears to hold for many developing countries as well.

Difficulties in achieving better quality

Although many factors help determine cognitive skills, most government efforts for improvement focus on schools—the place where they have the most policy leverage. Unfortunately, reforming school policies and improving performance are not just a matter of will, or of providing extra resources to schools. If the effectiveness of different resources—or combinations thereof—were known, it would be straightforward to define an optimal reform strategy. The problem is that we do not currently have enough credible knowledge about how best to use new resources.

The most straightforward way to illustrate the difficulties comes from a line of research considering the relationship



between resource usage and student performance. In the United States, for example, both aggregate data about performance of schools over time and more detailed school and classroom data point to a simple conclusion: there is a lack of any consistent or systematic effect of resources on student achievement. While controversial, partly because it conflicts with existing policy relating to education, the evidence is very extensive.

International evidence, although less extensive, supports the U.S. case. As Chart 2 shows, for the industrial countries, there is no obvious pattern of expenditure by test performance. This lack of relationship is confirmed by more detailed studies of the determinants of achievement.

Countries with the very lowest scores tend to spend noticeably less than the average, but these are developing countries that probably differ on much more than just spending. Studies of educational achievement, particularly in developing countries, have tended to rely on small, specialized data sets that provide limited information about family and schooling characteristics and that seldom track school performance over time. These problems have raised questions about the reliability of any findings and about whether the associations are truly causal in nature. Nonetheless, these studies tend to provide somewhat stronger support for resource policies, suggesting that the importance of resources may vary with the level of resources—a developing country may gain comparatively more by investing in education than a developed country because it is starting from a lower point. This proposition is reinforced by some of the more credible research findings, which indicate that the absence of the most basic school resources—such as adequate facilities or textbooks—noticeably impacts performance. Nonetheless, the evidence does not indicate that simply spending more, even in poor countries, can be expected to have a generally significant effect on student outcomes without closer attention to the uses of resources.

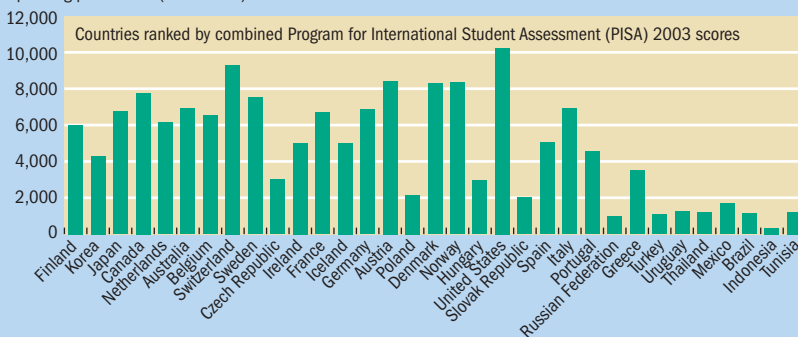
Most countries have at some point attempted to improve their schools. While some have succeeded, many have not. One explanation for failure is simply that insufficient attention has been paid to teacher quality. Estimated differences in annual achievement growth between an average and a good teacher are large. Within one academic year, a good teacher can move a typical student up at least four percentiles in the overall distribution (equal to a change of 0.12 standard deviations of student achievement). In fact, a string of good teachers can erase the deficits associated with poor preparation for school. The problem is that hiring good teachers is not easily achieved. Teaching ability is not closely related to training or experience. Moreover, most teacher salary systems do not reward high-quality teachers.

Chart 2

Quality and cost

Differences in student performance are not driven by national levels of school spending.

Spending per student (U.S. dollars)



Sources: *Education at a Glance: OECD Indicators 2003*; and *OECD, Learning for Tomorrow's World—First Results from PISA 2003*.

Clearly, policymakers should focus on improving the overall quality of the teaching force. If one were simply to redistribute existing teachers, the overall policy goals would not be achieved. But the research evidence suggests that many of the policies that have been pursued worldwide have not been very productive. Specifically, policies of individual countries that have led to changes in measured aspects of teacher qual-

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ity—such as degrees or other teacher qualifications—do not seem to have improved the quality of teachers, at least when that quality is measured by looking at student performance.

Instead, most existing evidence indicates that quality improvements are more likely to come from selecting and retaining better teachers rather than from retraining existing teachers. While some in-service training and development programs have had success, they have generally disappointed. Moreover, existing evidence on in-service programs does not provide us with sufficient insight for selecting a program that is likely to yield significant gains in teaching performance.

There are, of course, limits on how large the changes in the teacher force can be at any point in time. It is simply not feasible to turn over the stock of teachers completely while maintaining a coherent teaching program. Many countries do not currently have active teacher retention policies. Instead, most of the decision making is left to individual teachers—once a teacher is hired, decisions about when to leave are made by that teacher rather than the school institutions. Finding a better selection mechanism that redirects who enters into teaching and other policies affecting quality takes time. Thus, even optimistic reform programs call for long planning horizons—perhaps as long as 20–30 years—and an enduring commitment to reform.

Policy changes may affect the speed of replacement—both slowing and speeding up the rate of turnover. For example, changes in teacher contracts, salaries, and benefits may induce more or fewer teachers to leave teaching. Explicit changes to allow more institutional decision making also have an obvious impact on turnover. Moreover, the ability to improve the teaching force will depend on the people who can be attracted to teaching. If the teaching force is to be improved, either the hiring must select better teachers or

retention policies must be skewed toward the best teachers. If better hiring is an important element of the plan, it may well take time before new kinds of people are attracted to teaching. Teaching is generally a career choice that requires a prior commitment—one that in turn depends on the career expectations of would-be teachers. And expectations take time to be affected by general policies.

These considerations make the case for building a plan of improvement over time. One-time adjustments or changes in programs are unlikely to be effective. The most feasible approach, given currently available information, is to experiment with alternative incentive schemes. These might involve new contracts and approaches to teacher compensation, introduction of parental choice across schools, merit awards for schools, and the like. The unifying theme is that each new policy should be designed to improve student achievement directly. For example, merit awards to teachers could be directly linked to objective information about student performance.

Finally, we need to get a better handle on what works and what doesn't. Too often, there is no regular evaluation of policies and programs. And when evaluations are conducted, they frequently focus on inputs to the system rather than on student achievement and outcomes. This underscores the need to assess student outcomes that are related to both new and existing programs. The key element is measuring student performance directly. Without objective data about student achievement, programs and policies often proceed in unproductive directions. Indeed, past research amply demonstrates that many good guesses about policies did not in the end prove successful—making regular monitoring essential. ■

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What Does It Take

Emanuele Baldacci, Benedict Clements, Qiang Cui, and Sanjeev Gupta

Spending on education and health can boost human capital in poor countries and help them reach the MDGs, but only if governments are held accountable

RECENT REPORTS by the Millennium Task Force—set up to measure progress toward the Millennium Development Goals (MDGs)—show that while economic growth has contributed to a rapid decline in extreme poverty in China, India, and other parts of Asia where the bulk of the poor live, little progress is being made in sub-Saharan Africa, where the incidence of extreme poverty is the highest. Progress toward meeting the other development goals has also been uneven, with gender equality, maternal mortality, and environment sustainability still lagging behind the targets. Vulnerability to pandemic diseases, including HIV/AIDS, remains elevated in most countries.

These trends underscore the need for better public policies to support growth and reduce poverty. But while the international community agrees that something needs to be done, how best to go about it remains the subject of vigorous debate. No one questions that human capital—in the form of better health status and higher levels of educational attainment—is a major building block for sustaining the productivity growth that would, in turn, spur broad-based economic growth

in developing countries. But inefficiencies in the public provision of these services—due, for instance, to corruption or a lack of skilled workers—have led some to question whether just increasing public spending is the best route, especially given the role of other factors (such as income per capita) in determining social indicators. For that reason, we undertook a study to try to help policymakers evaluate the effects of different policies on social indicators and growth. This article examines our results, which show that while higher spending on health and education is worthwhile, poor governance and macroeconomic instability may offset the positive impact of social spending on growth and human development. But first it is helpful to review what past research has taught us.

Findings so far

What is the relationship between educational capital and growth? To date, researchers have mostly found a positive relationship between enrollment rates and/or years of schooling and GDP growth in developing countries. Moreover, a recent study (Coulombe, Tremblay, and Marchand, 2004), using a more refined measure of individual skills, found that a country with literacy scores above the sample's average also experienced an above-average increase in annual per capita GDP growth. However, while results at the microeconomic level suggest that investing in education is an effective way to spur economic growth, macroeconomic evidence points to a weak relationship, at best, between education and growth.

How about building up health capital? Studies typically suggest that the health of a population matters greatly. Conceptually, a healthy person not only works more efficiently but



to Help the Poor?

can also devote more time to productive activities. Based on microeconomic evidence, many authors argue that health explains variations in wages at least as much as education. Research at the macro level also suggests that health capital positively influences aggregate output. Earlier studies have shown that up to one-third of annual GDP growth can be attributed to health capital, and an increase in life expectancy of one year is associated with an increase in the long-run growth rate of up to 4 percentage points in both developing and industrial countries (Bloom and Sevilla, 2004).

But it is not clear that higher government outlays on health and education always boost growth. Why might higher spending be ineffective? One reason is the macroeconomic effects of excessive public outlays. Empirical studies find a negative association between large fiscal deficits and growth in developing countries. If higher spending on health and education leads to ballooning fiscal deficits, the negative impact on macroeconomic stability and growth could more than offset the beneficial effects of such spending on social indicators. A second reason is poor governance. And a third is poorly targeted outlays. For example, spending on tertiary education may yield few benefits for children from low-income families who cannot even afford to complete secondary school.

It is also not clear that higher social outlays help improve social indicators. Why not? For one thing, poor institutions may reduce the quality of spending (for example, corruption may divert funds allocated for teaching supplies to “ghost” teachers). When this is the case, returns on education tend to be lower. Previous studies, however, generally fail to account for the impact of institutions on the effectiveness of social spending. Moreover, interactions among different types of social spending are important. Education spending, for example, is likely to be ineffective if students are in poor health. Such interactions have also not been captured in previous research.

Another shortcoming of the literature is that only a few studies have examined social spending, social indicators, and growth within an integrated system. Most focus on only one segment of the social spending–social indicators–growth nexus. That is, they either analyze the growth effects of improving education or health indicators or the impact of public spending on these indicators. But, as the examples above illustrate, capturing the potential feedback among these variables is key for predicting the likely impact of different policy interventions.

Using an integrated approach

Faced with these weaknesses in previous research, we decided to undertake a study—using a panel data set for 120 developing countries from 1975–2000—that would try to capture the

potential feedback between social spending, social indicators, and growth. The building blocks of this approach can be represented by a simple economic model composed of three main relationships. The first describes output growth as a function of both physical and human capital inputs and labor; technology can be assumed to affect labor productivity. The second defines the accumulation of the stock of physical capital. The third describes the dynamic of human capital formation.

Solving these equations yields an expression for per capita output growth as a function of the initial income level, the stock of and new investment in human capital (separately for education and health), and the stock of and new investment in physical capital. If we combine specific expressions for the accumulation of physical and human capital with this growth equation, we obtain a system that links social spending to both human and physical capital accumulation and growth. Furthermore, we used a number of different techniques to address problems associated with endogeneity, measurement error, and omitted variable biases, and were able to find a consistent set of results.

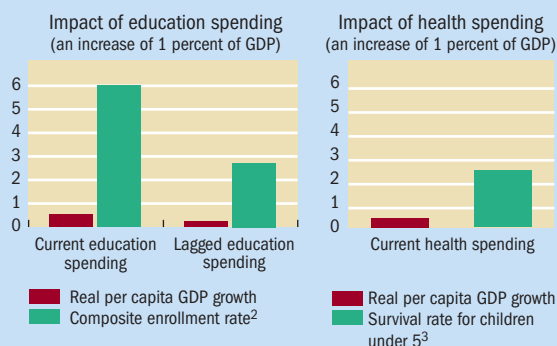
Our results show that:

- **Both education capital and health capital contribute positively to output growth**, but through slightly different channels. While both the stock and flow of education capital

Chart 1

Positive impact

Both current and past education spending affect today's human capital, but only *new* health spending matters.¹



Source: IMF staff estimates.

¹Effects on an average developing country. Both current education and health spending have significant effects. Lagged education spending (expenditure that occurred five years earlier) is also found to have a significant effect, but not lagged health spending.

²Increases in the sum of the gross primary and secondary enrollment in percent of the corresponding school-age population.

³In numbers of additional children who survived until age 5, per 1,000 live births.

affect growth by a similar magnitude, the only direct effect of health capital on growth is through flows. The stock of health capital does, however, affect growth indirectly via its positive effect on physical investment.

- **Education spending has both an immediate and a lagged effect on education capital** (see Chart 1). About two-thirds of the direct effect are realized in the first five years, with the remainder realized over the next five years. For example, the direct effect of an increase in education spending of 1 percentage point of GDP is associated with an increase in the composite enrollment rate of 6 percentage points within a five-year period and of another 3 percentage points in the following five-year period.

- **Health spending has a positive and significant immediate impact on health capital.** For example, an increase in health spending of 1 percentage point of GDP is associated with a rise in the survival rate of children under age 5 of 0.2 percentage point, on average, in developing countries. However, lagged health spending has no further effect on health indicators. Such a result can be explained intuitively: first, higher health spending immediately translates into better health outcomes, while the full gains from education involve a longer gestation period as students complete their schooling. Also, unlike education outcomes, health conditions are not cumulative and have to be maintained by regular care. This constrains the effects of health spending to the short term.

- **Education and health capital have strong links.** Health capital contributes to the accumulation of education capital, with an elasticity of about 1.3. This means, for example, that an increase in health capital of 10 percent would raise education capital by 13 percent. Therefore, in developing countries, good health conditions help promote better educational outcomes to a significant extent.

- **Improvements in gender equality improve health and education capital** through higher access to basic services.

For example, a 1 percentage point increase in the female share of enrolled students is associated with an increase of 2 percentage points in the composite enrollment rate, and an increase of 0.3 percentage point in the survival rate of children under age 5.

- **Higher income levels and greater human capital reinforce each other** and contribute to a virtuous circle of growth and higher human capital.

- **Governance has a significant direct impact on the links between social spending and social indicators**, with health spending being particularly sensitive to governance. Poor governance reduces growth mainly through its impact on human capital and investment. Countries with poor governance tend to have growth of about 1.6 percentage points lower per year than other countries. Similarly, poor governance is associated with a rate of investment to GDP that is 2 percentage points lower. The effect of governance on growth is transmitted through indirect channels via social indicators and investment.

- **The impact of education and health capital on growth varies in different country groups** (see Chart 2). The impact of education capital on growth is more pronounced in low-income countries. Geographically, the impact of incremental improvements in education is highest in sub-Saharan Africa and lowest in Asia. Similarly, the impact of improving children's chance of survival on growth is about 11 times as large in low-income countries when compared with middle-income countries, owing to high initial levels of child mortality in the poorest countries.

Policy implications

What are the policy implications of these findings? Using the model's results, we conducted a set of simulations to assess the impact of different policy interventions for improving social indicators and economic growth, and reducing the poverty headcount. The simulations assess the impact of an increase in education spending, an increase in health spending, an improvement in governance, a reduction in the budget deficit, and a reduction in inflation (see Chart 3). Each of the simulations assumes that the policy environment remains unchanged (except, of course, in the case of simulated changes in inflation and the budget deficit).

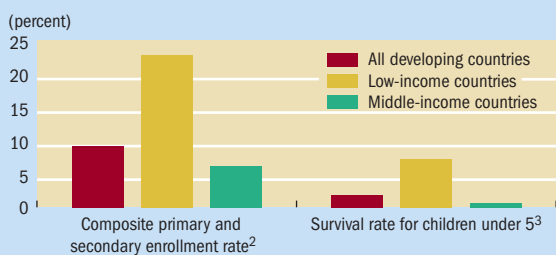
Based on the simulation results, an *increase in education spending* of 1 percentage point of GDP is associated with 3 more years of schooling, on average, and an increase in annual growth of 1½ percentage points of GDP in 15 years, translating into a cumulative reduction of the initial poverty headcount ratio by about 17 percent. Similarly, an *increase in health spending* of 1 percentage point of GDP is associated with an increase of ½ percentage point in the survival rate of children under age 5 and a rise of ½ percentage point in annual per capita GDP growth, which corresponds to a cumulative reduction of the initial poverty headcount ratio by about 12 percent.

Enhancing governance is a powerful instrument to improve social indicators and growth. A change in the governance index from lower- to higher-than-average (implying reduced

Chart 2

Low-income countries benefit the most

Investing in health and education yields the largest returns in low-income countries.¹



Source: IMF staff estimates.

¹Data refer to elasticity estimates that measure the percentage change in real per capita GDP growth in response to a 1 percent change in the variables on the x-axis.

²Increases in the sum of the gross primary and secondary enrollment in percent of the corresponding school-age population.

³In numbers of additional children who survived until age 5, per 1,000 live births.

corruption) is associated with an immediate reduction in the child mortality rate, an increase in the composite enrollment rate, and a rise in per capita GDP growth of a magnitude similar to the spending increases described above. Through the reinforcing impact of higher income on human capital, this measure can lead to even better social indicators.

The growth effects of *lower inflation* (and hence its effects on poverty) are also substantial. Cutting the rate of inflation by 10 percentage points is associated with ½ percentage point increase in annual growth. *Improving the fiscal balance* by 1 percentage point of GDP is associated with an increase in per capita GDP growth by ½ percentage point when the deficit is high. However, while the initial impact on growth is

comparable to that achieved with increased social spending, it does not bring additional lagged positive effects, as in the case with social spending. Furthermore, the effects from improving the fiscal balance in countries that have already achieved a modicum of macroeconomic stability are no longer significant.

No panacea

What are the implications for strategies aimed at meeting the MDGs? Given the positive effects of a number of different policies, efforts to meet the MDGs should be wide-ranging, as recently proposed in the reports of the Commission for Africa (an independent advisory panel set up by British Prime Minister Tony Blair) and of the UN Millennium Project (an independent advisory body to the UN Secretary-General). Spending increases should be accompanied by efforts to improve both the efficiency and targeting of public spending.

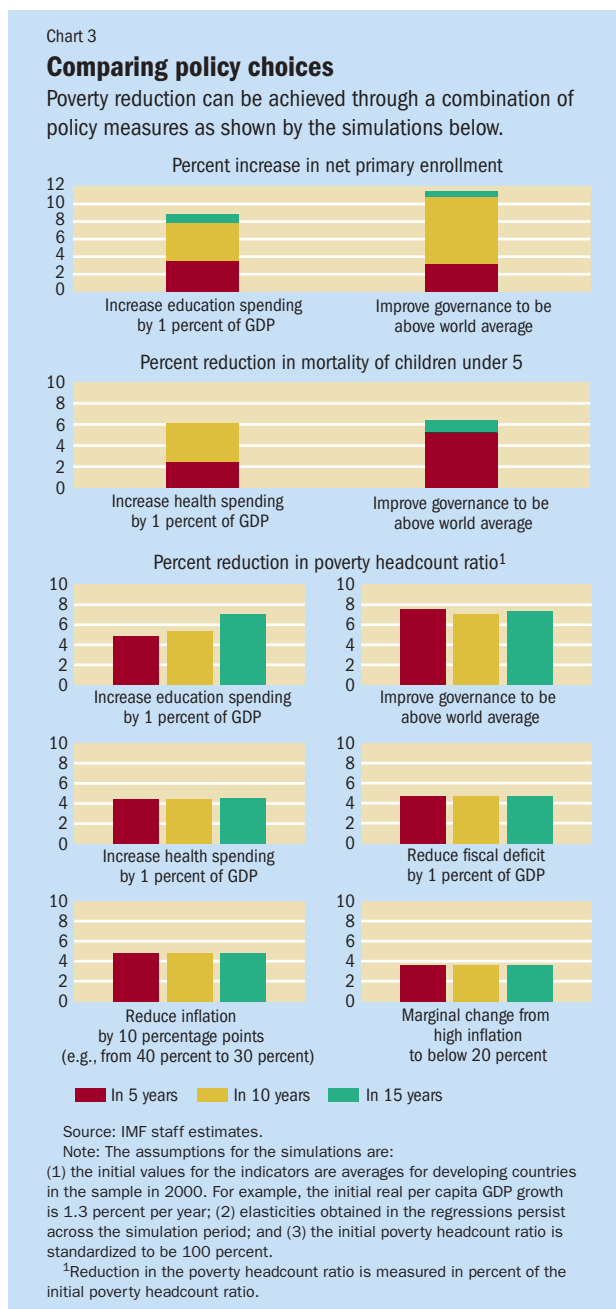
However, while improving human capital will have a salutary effect on growth, it is not by itself a panacea for unlocking the robust expansion in economic activity that is needed to achieve the MDGs. Social spending will be more effective in countries with better governance and lower levels of government expenditure, as the marginal returns to social spending tend to decline for countries that already spend substantially on these areas. ■

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Report Card on

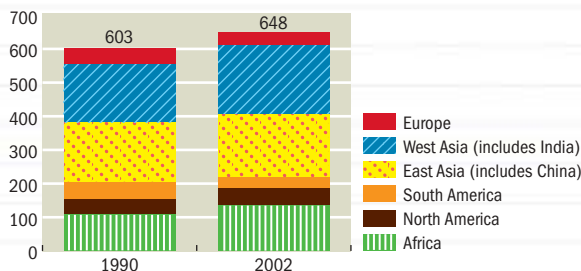
CHILDREN everywhere are spending more years in school than ever before but positive global trends in educational participation mask large disparities between the world's richest and poorest countries. Despite improvements in school enrollment, school life expectancy, and gender parity, overall progress has been mixed.

In fact, the international community has a long way to go to achieve its 2015 Education for All and Millennium Development Goals for education, in particular, to attain universal primary education and promote gender equality at the primary and secondary levels. Here, we look at progress made and the factors that affect the quality of primary education.

The number of primary school-age children has grown worldwide over the past 10 years . . .

The number of primary school-age children has increased by 45 million from 1990 to 2002, with almost all of the increase concentrated in West Asia and Africa.

(primary school-age population, in millions)¹



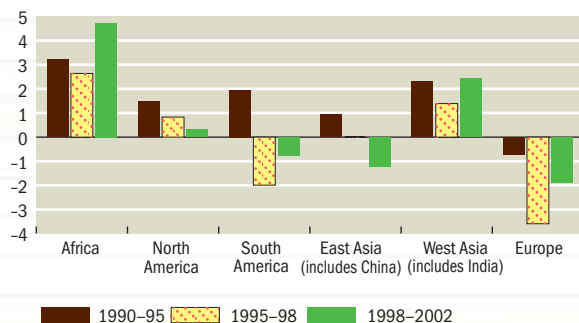
Source: United Nations Population Division, 2002 revision.

¹The primary school age varies among countries; it generally ranges between 6–12.

. . . and the number of children in school has begun to keep pace.

The number of primary school pupils in Africa grew by almost 5 percent a year between 1998 and 2002—the fastest growth worldwide—while the number of pupils declined in South America, East Asia, and Europe.

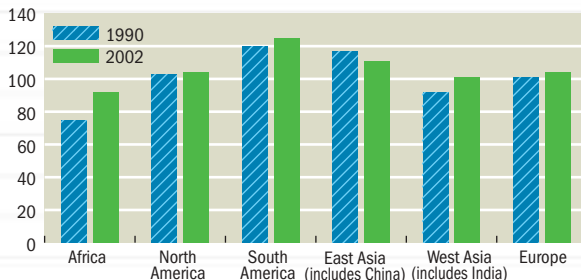
(average annual growth rates of number of primary school pupils)



Primary gross enrollment ratios are on the rise . . .

Slowing population growth and rising student numbers translate into higher gross enrollment ratios, meaning that coverage has improved.¹

(gross enrollment ratio, percent)

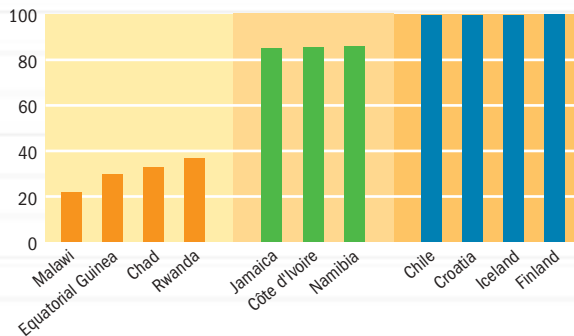


¹The gross enrollment ratio is the number of children enrolled in primary education, regardless of age, to the population of the age group that corresponds to the nationally defined ages for primary schooling. A ratio in excess of 100 percent typically reflects the inclusion of underage as well as overage students who have entered school late or repeated grades.

. . . but completion rates are still abysmally low.

In a number of countries, less than 50 percent of primary pupils complete primary education and thus many do not attain even basic literacy or math skills.

(survival rate to last grade of primary school, in percent of relevant population, 2002)¹

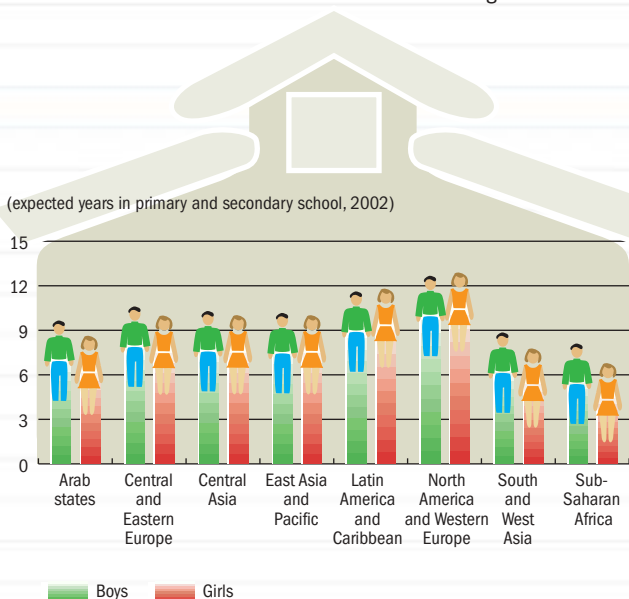


¹The countries shown here represent those with the lowest, median, and highest primary school completion rates.

Primary Education

Children are spending more time in school . . .

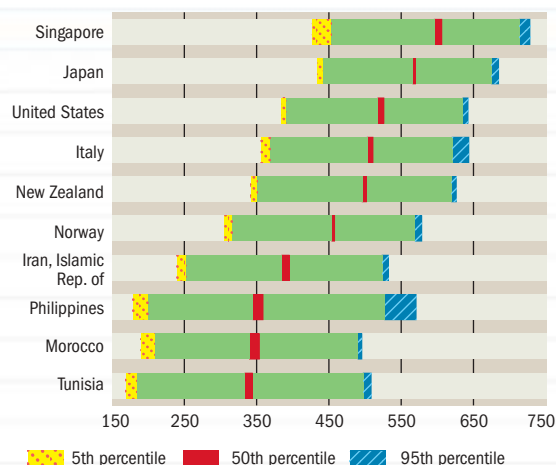
Worldwide, children are spending an average of 9.5 years in primary and secondary school, but time spent in school by children in sub-Saharan Africa and South and West Asia is well below the average.



. . . but differences in learning are dramatic.

In the fourth grade, for example, average performance in mathematics in Singapore far exceeded performance even at the 95th percentile in Iran, the Philippines, Morocco, and Tunisia.

(percentiles of achievement scores, fourth grade mathematics, 2003)

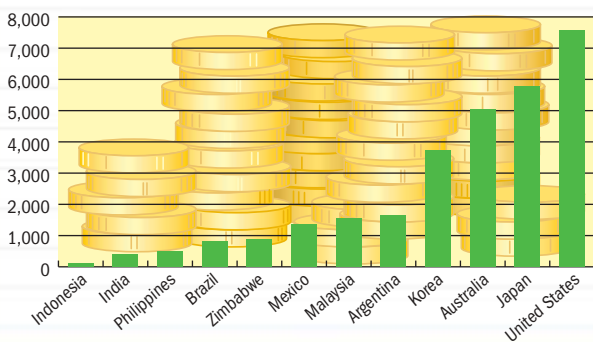


Source: Trends in International Mathematics and Science Study, 2003, International Association for the Evaluation of Educational Achievement.

Public spending per primary pupil varies widely among countries in absolute terms . . .

Argentina spends four times more per pupil than India, which, in turn, spends almost four times more per pupil than Indonesia.

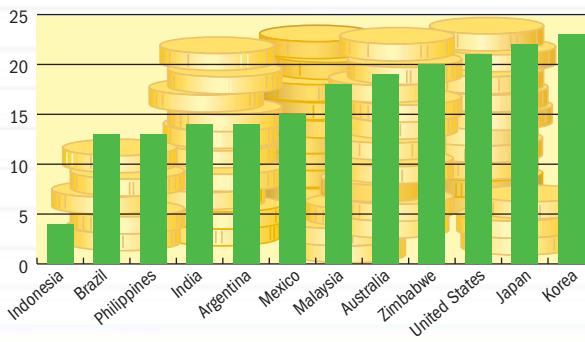
(public expenditure per pupil, in dollars at purchasing power parity, 2001)



. . . but when judged relative to national wealth is strikingly similar.

When related to national income, Argentina and India both spend 14 percent of GDP per capita per primary pupil, but Indonesia is still well below average at only 4 percent.

(public expenditure per primary school pupil as a percent of GDP per capita, 2001)



Prepared by the UNESCO Institute for Statistics (UIS), Montreal, Canada. For additional education data, see the UIS website at www.uis.unesco.org. Unless otherwise indicated, the source for all charts is the UIS.

Keeping the Promise

What is holding up achieving primary education for all African children?

Birger Fredriksen

PROGRESS in literacy and learning has done more to advance human conditions than perhaps any other policy. That is why the international community since 1960 has set three successive target dates for achieving universal primary education (UPE), one of the UN Millennium Development Goals (MDGs) for 2015. But disturbingly, recent data show that sub-Saharan Africa has an average primary school completion rate of just 59 percent, far from the required 100 percent. The World Bank–IMF *Global Monitoring Report 2005* notes that, in fact, on current trends, the region will not achieve UPE until 2061.

Should that happen, the region's already weak human capital base would severely limit its growth prospects. Average adult educational attainment is about three years—only half of the historical minimum threshold for achieving sustained growth. Yet in today's knowledge- and information technology-based economy, even longer attendance is needed. Moreover, basic education, especially for females, is a means for attaining other MDGs, especially those related to health. And literate citizens are the foundation for well-functioning democratic institutions, and for achieving social cohesion and peace, which, in turn, are preconditions for growth.

Can the region get on track to reach the 2015 target? For some 22 countries—those with a completion rate of under 60 percent—the goal is uncomfortably out of reach. But for many others (such as Ghana, Kenya, Nigeria, and Tanzania), the goal can be met if recent progress is maintained. In fact, there are three factors that give cause for optimism for the entire region making big gains on the education front.

- Since the mid-1990s, major gains have been made in tackling the key causes for the failure to meet past targets. These include better macroeconomic and education policies, improved governance, and less civil strife.

- Recent data confirm a marked turnaround in primary education since the late 1990s. The region's average gross enrollment ratio (GER)—the ratio of the number of children enrolled in primary education, regardless of age, to the population of the age group that corresponds to the nationally defined ages for primary schooling—increased from 78 percent in school year 1998–99 to 83 percent in 2000–01, and to 91 percent in 2002–03, reflecting a broad-based increase in access in nearly all countries at a level not seen since the 1970s. Partial data for more recent years and experience at the country level confirm that the upturn is real and continues.

- External assistance for education is increasing.

Hence, development over the next decade may resemble more the enormous progress made in the early post-independence period than the stagnation of the 1980s and early 1990s, which color assessments based on data prior to 2000. Between 1960 and 1980, the GER rose from 45 to 80 percent, and enrollment increased by an impressive 260 percent. But because the school-age population grew five times faster than projected (93 percent), the GER did



Students hard at work in a classroom in Kenya.

not reach the 1980 target of 100 percent. In the following years, the GER declined, reaching a low of 73 percent by 1992, before slowly regaining its 1980 level by 2000. The 70 percent enrollment increase between 1980 and 2000 was just enough to keep pace with population growth.

Africa now needs to further improve access: if the current level of grade repetition of 20 percent is maintained, the region needs a GER of at least 120 percent to enroll all children of primary school age. Africa also needs to sharply reduce high dropout rates. Whether or not the region can make this sort of progress will hinge on its success in overcoming an almost overwhelming number of shifting obstacles, such as tight budgets, weak capacity, and HIV/AIDS. And the international community will need to boost aid levels and improve the effectiveness of its assistance.

Shifting obstacles

Achieving UPE requires that all children enter primary school, complete the cycle, and acquire a set of basic skills. In 2001–02, about 93 percent of sub-Saharan African children entered school and two-thirds completed the cycle. Of these, only half mastered the expected basic skills. Thus, the main obstacles have shifted from increasing admission to reducing dropout rates and improving learning outcomes.

But although admission rates are high, access remains a problem, especially with respect to equity, because access differs markedly by family income, urban/rural location, and gender. An added challenge is that, largely driven by HIV/AIDS, one out of ten primary school-age children will be orphaned by 2010. Moreover, the school-age population is projected to rise by 23 percent between 2000 and 2015—in contrast to a rise of only 6 percent in South Asia, and *decreases* in Latin America (1 percent) and East Asia (14 percent).

Reaching those not in school will require action on the demand side to lower costs to poor families. For example, the removal of school fees in Kenya, Lesotho, Malawi, and Uganda caused a major surge in admissions (see box). On the supply side, governments will need to increase the provision of schooling in underserved areas—a strategy that helped boost admission rates significantly in recent years in low-enrollment countries such as Burkina Faso, Mali, and Niger.

What can be done to improve quality—epitomized by the region's 20 percent grade repetition? While views differ on what constitutes “good-quality education” and how quality impacts learning, three areas stand out:

Quality inputs. Priority should be given to training materials and in-service teacher training where shortages are severe and reduce teachers' effectiveness. At 44:1, the region's pupil/teacher ratio is on average three times that of developed countries—and one in four countries has ratios above 55:1. Nevertheless, reducing the ratio below 40:1 is unlikely to be cost-effective at present. While teacher salaries are low—and have dropped sharply in recent decades—compared with per capita income, they are on average somewhat higher than in other regions (Mingat, 2004). The drop in salaries has stemmed from declines in GDP per capita, along with lower teacher salaries as a multiple of GDP per capita—a problem

particularly in Francophone countries, especially in the Sahel. In 1975, the average primary school teacher salary in the Sahelian countries was 17.6 times GDP per capita (using data denominated in local currency for teacher salaries and GDP per capita). By 2000, this figure had fallen to 6.4 percent, which was still above the African average of 4.4.

Management. Within most countries, there are marked differences among schools in resource allocation per pupil and, for the same resource endowment per pupil, in learning outcomes. More and better-quality inputs need to be coupled with more effective use, through improved management and accountability, at both system and school levels to promote greater equity in pupil/teacher ratios across schools, less teacher absenteeism, longer school years, and more parental involvement in school management.

Home factors. Even a well-endowed and -managed school cannot prevent dropout or ensure effective learning if the children are hungry, walk long distances, work long hours at home, or have illiterate parents. Cost-effective, poverty-focused interventions include improving nutrition through school-feeding and micronutrient programs; limiting walking distance by establishing smaller, multigrade schools; reducing the need for child labor, especially for girls, through labor-saving devices such as drilling wells; and by providing adult literacy courses.

Challenges for governments

The ability of governments to maintain the recent positive trends in education is held back in particular by severe

Lifting user fees boosts admissions

One key obstacle to achieving UPE remains the high direct costs of education to parents, especially for the poorest households. User fees still exist in at least 35 sub-Saharan African countries, although almost half of them legally have free primary education.

To address this problem, many countries—including Malawi (1993), Uganda (1996), Lesotho (1999), and Kenya (2002)—have introduced free primary education policies over the past decade. In the year after user fees were stopped, enrollment rose dramatically—far exceeding government expectations. It increased by 68 percent in Malawi and Uganda, 22 percent in Kenya, and 11 percent in Lesotho (but 75 percent for grade one).

Should policymakers worry about the elimination of fees hurting education quality? If fees do finance quality inputs, they would need to be replaced. But they often “disappear” through various leakages and at best only partially finance quality inputs. Furthermore, while in most cases total income from fees constitutes a small part of total education resources, enrollment of children from poor households is *very* sensitive to even small fees. Therefore, from an equity point of view, the main *quality impact* of school fees is often highly regressive, since fees prevent access of poor children, thus limiting overcrowding and permitting more public resources available per student for those who can afford to attend school.

budgetary constraints, weak capacity, and the HIV/AIDS pandemic.

Difficult political economy. The region's slow-growing, rural-based economies do not generate the tax revenues necessary to both reach UPE and provide publicly financed secondary education, nor do they generate modern sector jobs for graduates. In fact, many countries are trapped in a vicious circle where a low skill base constrains economic growth, but where low growth, in turn, severely limits financial space to improve skill levels as well as "political space" to introduce needed education reforms. Moreover, teachers have strong unions, and the success of reforms depends on their support. This can be difficult to obtain in countries with a long-term decline in teacher salaries resulting from declines both in GDP per capita over the last 30 years and in salaries relative to GDP per capita.

Inadequate capacity. Implementation of policies and programs needed to reach UPE requires stronger technical and management capacity. Developing such capacity in sub-Saharan Africa has proven elusive. There is no panacea, but a successful strategy must focus more on creating working conditions that can better mobilize, utilize, and retain existing capacity rather than, as in the past, focusing largely on training and technical assistance to create new capacity.

HIV/AIDS. The pandemic will have an increasingly negative impact on education, as HIV-infected teachers become ill (increasing absenteeism and impairing their effectiveness) and die (reducing teacher supply), and through the rapid increase in orphans. Apart from the human suffering, this will substantially increase the costs associated with UPE. The problem is compounded by countries falling short in using education effectively for HIV/AIDS prevention.

Challenges for aid agencies

The attainment of UPE must be largely financed through domestic resources, but aid has an important supporting role—and may even become the dominant financing source over a transition period for some countries far away from UPE. Thus, it is vital to boost the volume of aid and improve its effectiveness.

On the volume front, there is some good news. In particular, the "Fast Track Initiative" launched in 2002 is becoming an important initiative for mobilizing more resources as well as for promoting more effective resource use through better programs and closer donor coordination. And there are indications that external financing is increasing. In addition, countries benefiting from debt relief under the enhanced Heavily Indebted Poor Countries (HIPC) Initiative have committed to use an average of 40 percent of their debt payments savings on basic education. A recent review shows that countries are largely meeting this commitment.

More effective aid requires better donor coordination and enhanced aid predictability. In addition, priority should go to developing a specific strategy for slow-growing, low-income countries that need special sustained support to reach UPE by 2015. The strategy must deal with issues such as provision of more effective technical support for capacity

building, support for nonperformers, and financially sustainable strategies for addressing the demand for secondary education resulting from UPE.

An ongoing, shared responsibility

The opportunity for sub-Saharan Africa to reach UPE by 2015 is greater now than at any time since the early 1980s. But turning this opportunity into reality will require major efforts—ones that will vary enormously by country. Even so, the following issues will frequently need to be addressed.

Capacity strengthening. Most education systems urgently need to strengthen their technical and management capacity, both through explicit investment and through learning by doing.

Domestic resource mobilization. Education expenditures already figure prominently in highly constrained public budgets, and most low-income countries have only modest scope for additional domestic resource mobilization or for reallocation within or across sectors. That said, additional domestic resources *will* be required if sharply increased aid dependency is to be avoided. To illustrate, a 2003 World Bank publication estimates that for low-income sub-Saharan countries to reach UPE by 2015, the share of external aid in education budgets would need to reach an average of 42 percent in 2015, up from about 30 percent in 2000 (Mingat, 2002). Other estimates of needed external aid are much higher.

Technical assistance. Recent increases in financial aid have not been matched by a commensurate increase in technical support. In fact, the trend toward providing education aid through budget support is leading many aid agencies to reduce their capacity to provide quality technical support. This trend is worrisome. Agencies need to revitalize their ability to offer strong technical staff who can provide high-quality advice and help diffuse good practices. In this connection, it is time to consider how UNESCO can be strengthened to provide such support.

* * * * *

While there are no easy paths to attaining UPE in Africa, the directions to take are reasonably clear and are followed by a number of countries. It is the task of national and international political leaders to put more countries on that path. ■

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The Quiet Revolution

How India is achieving universal elementary education

Kin Bing Wu, Venita Kaul, and Deepa Sankar

INDIA'S elite educational institutions have been producing the first-rate scientists, engineers, and managers who helped India's information technology sector take off during the 1990s. Far less visible is the more recent, quiet revolution in India's elementary education that, if successful, will equip an entire younger generation with skills to improve productivity and reduce the burden of disease, high birth rates, hunger, and poverty, while changing societal attitudes toward gender, caste, tribe, and disability.

What India has accomplished is no small feat—especially given that its population grew from about 840 million to nearly one billion between 1991 and 2001, with the number of children age 6 to 14 rising by 35 million to 205 million. Over roughly the same period, the gross enrollment ratio (GER) in primary education (grades 1–5) rose from 82 percent to 95 percent, and in upper primary education (grades 6–8) from 54 percent to 61 percent (see table). Available government data suggest that in that age group, the number of children not in school fell sharply from about 60 million in the early 1990s to 25 million in 2002, and this decline is continuing. While specific numbers in such a large federal system may be viewed with caution, the rough magnitude of the progress appears to be in little doubt.

The expansion of primary education—driven by major policy changes along with higher demand for schooling stemming from economic growth and globalization—took hold all across India. Historically, India's southern and western states had always been far ahead in education of the large northern states, which accounted for most of the out-of-school children. Over the past decade, however, many poorly performing states began to make real overall advances—the pri-

mary GERs in Rajasthan, Uttar Pradesh, and Madhya Pradesh were well over 90 percent, although the ratio remained at 74 percent in Bihar. The southern states, the states on the east and west coasts, the Himalayan states, and the northeastern states—except for Assam and Nagaland—were either approaching universal primary enrollment or had already achieved it. Increased access for girls and children of disadvantaged groups accounted for much of the improvement. The overall GER for girls was 92 percent and over 95 percent for children of Scheduled Castes and Scheduled Tribes—the most disadvantaged groups, which make up 18 and 9 percent, respectively, of all primary school-age children.

Given the momentum built up over the years, India will, in all likelihood, meet the education Millennium Development Goal (MDG) of universal primary education—which calls for all children of primary school age to participate in the school system and complete primary school. This article explores India's quiet revolution.



Students attend class in Kameswaran village in south India.

From elites to all

India's education development since independence can be divided into three phases.

Phase 1: Educating the elites to build national capacity. From independence in 1947 through 1986, education policy emphasized building national capacity for self-government and self-sufficiency through elite education. The states were mainly responsible for financing and providing education, which led to mixed results as commitment varied between states. Initially severely constrained, public spending for education rose from below 1 percent of GDP in 1950 to 3.4 percent in 1986.

Phase 2: Making primary education a national priority. In 1986, the government of India (known as the Union

Educating the masses

After primary education was made a national priority, enrollment—especially for girls—showed dramatic gains.

	1993	2002
	(percent)	
Primary education (grades 1–5 for ages 6–11)		
Total gross enrollment ratios ¹	82	95
Among boys	90	98
Among girls	73	93
Upper primary education (grades 6–8 for ages 11–14)		
Total gross enrollment ratios	54	61
Among boys	62	65
Among girls	45	56
Secondary education (grades 9–12 for ages 15–18)		
Total gross enrollment ratios	32	36
Among boys	39	39
Among girls	24	30
Tertiary education (postsecondary to postgraduate for ages 19–24)		
Total gross enrollment ratios	5.3	9
Among boys	6.8	10.3
Among girls	3.6	7.5
	(percent of GDP)	
Total public spending on education and training	3.6	4.1
Total public spending on elementary education and training	1.7	2.1
	(dollars)	
Public spending per elementary student (constant 2002 prices)	25	44

Sources: Data from India's Ministries of Human Resource Development and Finance; and World Bank estimates.

¹Gross enrollment is the ratio of the number of children enrolled in primary education, regardless of age, to the population of the age group that corresponds to the nationally defined ages for primary schooling. A gross enrollment ratio in excess of 100 percent typically reflects the inclusion of underage as well as over-age students who have entered school late or repeated grades.

Government) launched the landmark National Policy on Education, which resulted in a series of pilot projects on a large scale. Following the World Conference on Education for All in 1990 in Jomtien, Thailand, India opened up to external assistance for primary education. The most extensive external partnership, involving the World Bank, the United Kingdom, the European Commission (EC), the Netherlands, and UNICEF, was the District Primary Education Program in 18 large states, covering about half of India's 600 districts with low female literacy rates. The program created active partnerships between the government and civil society organizations and strengthened coordination in the areas of planning, training, and research. Financial management and procurement systems, procedures, and checks and balances have been put in place, making it possible to scale up in the next phase.

Between 1993 and 2002, total public spending on education rose steadily from 3.6 to 4.1 percent of GDP, higher than the average spending of 3 percent of GDP among low-income countries. Elementary education expenditure rose from 1.7 to 2.1 percent of GDP, accounting for over 60 percent of the growth in public expenditure on education in this period. As the economy grew about 6 percent annually over this period, resources increased in both relative and absolute terms and spending per elementary student rose from \$25 to \$44 despite higher enrollment. The Union Government's share of total

public expenditure on education rose to about 15 percent, with the states covering the remainder (see chart).

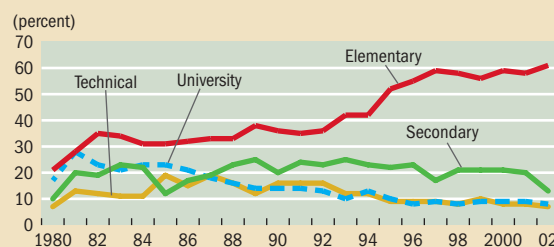
Phase 3: Universalizing elementary education. In 2001, India launched the National Program of Universal Elementary Education, known in Hindi as *Sarva Shiksha Abhiyan* (SSA), and amended its constitution to make quality elementary education a fundamental right of every child. The program is designed so that by 2007, all children, including children with disabilities, will have completed primary schooling, and by 2010, upper primary schooling—a much stiffer requirement than the MDG of universal completion of primary education by 2015.

The SSA program combines centrally set targets and norms for planning and costing with decentralized management, bottom up planning, community mobilization, and social audits. With the Union Government contributing 75 percent and the states 25 percent, SSA funds annual work plans submitted by states and districts to meet the targets. To ensure that central funds are not used to substitute state spending, SSA obliges the states to maintain spending for elementary education in real terms at the 1999 level and to match growing central funds above this level. The expected incremental SSA cost of \$3.5 billion for 2004–07 would add another 9–10 percent per year to the total resources for elementary education. Three external partners (the World Bank, the United Kingdom, and the EC) contribute \$1.05 billion to the Union Government's share.

SSA finances civil works, salaries for additional teachers, alternative schools in sparsely populated areas, bridge courses for dropouts, innovations, teacher training, school and teacher grants, and community-based organizations to provide on-site support. To tackle gender and social inequalities, SSA subsidizes the cost of providing free textbooks to all girls and all students of Scheduled Castes and Tribes, special facilities for girls (such as early childhood education centers for alternative sibling care and girls' toilets), and grants to districts to support students with disabilities. SSA also funds a national component for capacity building, technical support, monitoring and evaluation, financial management, dissemination of good practices, and media campaigns.

Teaching the young

The Union Government increasingly allocated education spending in its five-year plans to elementary education.



Source: Indian Ministry of Human Resource Development.

The program is designed to emphasize participation, transparency, and public accountability. It requires that every state take a baseline household census of children to ascertain their age, gender, social, and education status. Once the Project Approval Board agrees to the states' and districts' annual work plans, funds are released to the states for implementation. The funds are overwhelmingly spent at the community level, and their sources and uses at the school level are required to be posted publicly.

Since its 2001 launch, SSA has focused its efforts—with initial signs of success—on enrolling children who have never enrolled and in bringing dropouts back to school, while at the same time taking in new age groups and improv-

“As India has vastly expanded enrollment, it now needs to reduce high teacher and student absenteeism, lower repetition and dropout rates, and improve student achievement.”

ing the quality of educational inputs. SSA is complemented by another national program, the Mid-Day Meal Scheme, that provides daily school meals to all primary school students, thereby providing not only the needed nutrition but also incentives for poor children to enroll in and complete school. SSA enjoys nonpartisan political backing, as evidenced by major budget increases under both the present and previous Union Governments. The Prime Minister of India is the Chair of SSA's National Mission, ensuring the highest-level attention.

Risks and challenges

As India has vastly expanded enrollment, it now needs to reduce high teacher and student absenteeism, lower repetition and dropout rates, and improve student achievement. In 2002, an early assessment of public school student achievement in grade 5 suggested huge differences within and across states. India tends to reward rote learning, and there are no international benchmarks for judging education standards. At the national level, periodic assessments of student achievement are planned. It is vital that the test instruments be valid, reliable, and well designed. Participation in international comparative assessments should be used to improve and strengthen the technical capacity for measuring quality. Some states are taking steps to focus on quality. Madhya Pradesh has a system of tracking each child's achievement in each subject for diagnosis, remedial education, and teacher training, and the results of statewide examinations at the end of grades 5 and 8 are reported to the state legislature, putting the focus on learning outcomes.

Meanwhile, sustaining improvement in the teaching and learning process, increasing the time-on-tasks, and devising specific strategies to address special needs are essential.

Multigrade classrooms, common in rural areas, require far more learning materials and teachers than are currently provided. With 17 official languages and more than 300 spoken languages and dialects in India, tribal children need help to overcome language barriers.

Lessons for others?

Could India's experience help guide other countries striving to reach universal primary education? Five lessons come to mind.

First, successive Union Governments have provided strong leadership in defining national goals and setting time-bound targets—elimination of gender inequities, full participation of disadvantaged groups, universal completion of elementary education, and establishment of minimum standards for inputs across and within states.

Second, to advance these national goals, India's Union Government—aided in part by external assistance—not only sustains massive transfers of resources but also requires the states to commit resources to meet the goals through the matching fund mechanism.

Third, SSA combines central leadership with decentralized planning and implementation. It provides ample flexibility to design locally specific strategies. It encourages partnerships with nongovernmental organizations and requires community oversight to ensure transparency and sustainability.

Fourth, investment in school meals has raised enrollment and helped retention, while providing much needed nutrition to poor children.

Fifth, substantial efforts were put into institutional development and capacity building while the education program was rapidly expanded. This approach provides room for innovations (such as the provision of alternative schools, which brought flexibility to a rigid system, and the use of community-based teachers) and enables successful models to be developed for large-scale implementation. ■

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Fiscal Space: What

Peter Heller

“FISCAL SPACE” is a term that has recently become fashionable in the aid community. But what it means is fuzzy. Sometimes, the concept has cropped up when governments have argued that fiscal constraints should be relaxed to accommodate additional borrowing to finance infrastructure projects. The logic is that these projects create productive assets that pay for themselves over the long term, thus creating the fiscal space that they need. But recently, the term has also been used by advocates of higher health and education outlays who have argued that these expenditures will eventually pay for themselves through higher returns to human capital. Although the term is new, the concept is not. It has long been an element of sound fiscal analysis. And the challenge of creating fiscal space is one that has *always* confronted governments and their advisors, including international financial institutions like the IMF.

Defining fiscal space

What is fiscal space? It can be defined as *room in a government's budget that allows it to provide resources for a desired purpose without jeopardizing the sustainability of its financial position or the stability of the economy*. The idea is that fiscal space must exist or be created if extra resources are to be made available for worthwhile government spending. A government can create fiscal space by raising taxes, securing outside grants, cutting lower priority expenditure, borrowing resources (from citizens or foreign lenders), or borrowing from the banking system (and thereby expanding the money supply). But it must do this without compromising macroeconomic stability and fiscal sustainability—making sure that it has the capacity in the short term and the longer term to finance its desired expenditure programs as well as to service its debt.

How can this be done? The government must ensure that the higher expenditure in the short term, and any associated future expenditure—including any recurrent spending on operations and maintenance required by an infrastructure investment, or by the establishment of a school or hospital—can be financed from current and future revenues. If debt-financed, the expenditure should be assessed by reference to its effects on the underlying growth rate and the country's revenue-generating capacity. The government needs to be sure, in particular, that increased outlays in one worthwhile area—health, for example—will not ultimately crowd out productive spending elsewhere.

For developing and emerging market countries, fiscal space

may seem a more immediate issue than in advanced economies because there are more pressing needs for expenditure today. But longer-term issues are also involved, even for lower-income countries, because of the need to ensure that there will be room to respond to unanticipated fiscal challenges. For example:

- Countries that receive significant flows of foreign resources for a specific sector (such as health care) may, as a result of the associated expansion of the sector, face additional future spending needs that may essentially preempt a share of the growth of future domestic budgetary resources.
- Foreign resource inflows, such as aid, may hurt a country's macroeconomic situation (for example, by raising its real exchange rate and thus reducing its international competitiveness) or cause excessive aid dependency, so that such inflows may need to be limited. A foreign-financed expansion of a specific sector (for example, education) may then imply limits on the magnitude of foreign resources available to other sectors.
- Resource inflows may finance a government activity, such as pension reform, that creates a liability in the form of future payouts that are highly uncertain in magnitude and timing.

The IMF's approach

What is the IMF's stance? When the IMF evaluates a country's macroeconomic situation, it is open to the creation of fiscal space through higher foreign grant inflows for spending on infrastructure or social programs. But the IMF would flag a concern if the higher spending jeopardized macroeconomic stability or debt sustainability. Such caution particularly extends to the use of central bank credit, given the IMF's concern with inflation and its damaging effects on growth and poverty. Moreover, higher spending in a sector, even if financed from external grant flows, may have implications for other sectors that will need to be taken into account.

How is potential fiscal space determined? The IMF looks at both the scope for greater public saving through expenditure rationalization and tax reform, and the extra resources that can be mobilized from borrowing and grants. It also appraises underlying factors that affect the outcome of government policies.

Reprioritizing expenditure. Curbing unproductive spending should be an important objective. This may require cuts in subsidies or military outlays, wage restraint, or rationalization of elements of the civil service (including by tackling the common problem of ghost workers). But at the same

It Is and How to Get It

time, productive spending needs to be protected: not spending enough on a sector (say, health) can have damaging social effects and prove to be a false economy, raising future spending requirements by weakening the sector so much that it would be costly and time consuming to “rebuild” it.

Boosting efficiency. Other aims should be to streamline the implementation of programs, reduce corruption, and improve governance. Donors can help by paring conditionality, eliminating aid-tying, reducing administrative overheads, better coordinating spending in a sector, and reducing the administrative overload imposed on the limited number of recipient country program managers.

Raising revenue. For countries with low ratios of government revenue to GDP, broadening the tax base and improving tax administration are likely to be important objectives. For low-income countries, a tax ratio of 15 percent of GDP should be seen as a minimum objective.

Increasing borrowing. Given that domestic and foreign borrowing must be serviced and repaid, policymakers need to evaluate whether the social return from the uses to which the borrowing is put justifies the cost. Governments may choose to borrow without taking specific account of the direct returns, but then must do so when assessing the overall sustainability of a program. Such assessments typically weigh an economy’s prospective growth rate, potential for exports and

remittances, prospective interest rate environment, revenue elasticities, composition of existing debt (in terms of interest rates, maturity, and currency of borrowing), and terms of new debt being considered.

Monetary expansion. This is not a desirable option! A government’s borrowing from the banking system should be driven by monetary policy objectives—namely, the creation of sufficient liquidity to support an economy’s real growth, with no more than low inflation. Even if a government were explicitly to rely on money creation to facilitate somewhat higher government expenditure, there are clear limits, given the potential inflationary impact.

Securing more external grants. For many developing countries, this is increasingly feasible given the global commitment to help countries reach the Millennium Development Goals (MDGs). Grants can clearly provide more fiscal space than borrowing, where debt sustainability considerations have to be taken into account even when loans are highly concessional. But only a *sustained and predictable* flow of grants can create the potential for a scaling up of expenditure that can be maintained, and reduce the uncertainty as to whether a grant is simply of a one-time nature. (See *Back to Basics* in *F&D*, December 2004). And countries will need to take account of the potential macroeconomic consequences in terms of international competitiveness that may arise from a significant scaling up in absorption of external resource inflows.

Pursuing sound macroeconomic policies. Delays in completing IMF program reviews or cessation of IMF-supported programs—which often results from a country’s failure to implement agreed macroeconomic policies—can affect assistance from other lenders and donors, and result in volatile flows. Countries that manage policies well are likely to have greater potential for creating extra fiscal space. Governments need to clarify with donors the likely availability of foreign assistance over the medium to long term and structure their expenditure programs accordingly.

In sum, the fiscal space debate has proven useful, reflecting the importance of clarifying ways to facilitate expanded spending by governments to foster growth through higher infrastructure spending and to finance programs vital to the achievement of the MDGs, particularly those related to HIV/AIDS. And the IMF is committed to working with countries to explore the scope for expanded fiscal space. ■

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The case of Malawi, Tanzania, and Zambia

How much extra fiscal space might there be in Malawi, Tanzania, and Zambia? This question was considered in a recent IMF review. On the *tax* front, only Tanzania would have room for higher taxes, since tax-GDP ratios in Malawi and Zambia are already high by regional standards. Tanzania might also be able to *reprioritize spending*, but Malawi and Zambia would be constrained by the high share of wages and salaries and interest payments in total spending.

How about higher *concessional borrowing*? Tanzania could pursue this route, but Malawi and Zambia would be hampered by high domestic debt levels—and until external debt is brought down to sustainable levels through debt relief, taking on more debt would be questionable. Thus, the best route for all three countries would be more *foreign grants*. But for this to work, Malawi and Zambia in particular would need to strengthen public expenditure management. And they would all need to pursue sound macroeconomic policies to limit any potential adverse effects on real exchange rates or interest rates.



FINANCING

Higher Education

Nicholas Barr

Reforms in Britain may provide a useful framework for other countries

Photo above shows undergraduates attending a chemistry lecture at Cambridge University in England.

HIGHER EDUCATION faces problems throughout the world: universities are underfunded, raising worries about quality; student support is inadequate; the proportion of students from disadvantaged backgrounds is lamentably small; and the financing of universities in many countries is regressive, since the money comes from general taxation but the major beneficiaries are from better-off backgrounds.

No longer only a consumption good enjoyed by an elite, tertiary education is an important element in national economic performance and a major determinant of a person's life chances. Thus, the expansion that is taking place internationally is both necessary and desirable. But higher education is costly, and faces competing imperatives for public spending. Its financing is therefore important and immensely sensitive politically. Despite the problems, widespread agreement exists on two core objectives: strengthening quality and diversity, both for their own sake and for

reasons of national economic performance; and improving access, again for both efficiency and equity reasons. If it is not possible to rely wholly on public funding, it is necessary to bring in private finance—but in ways that do not deter students from poor backgrounds. Much of this article addresses that issue. The arguments, though ostensibly about higher education in richer countries, apply more broadly to tertiary education and to developing economies.

What can economic theory teach us?

Economic theory offers a useful perspective for analyzing higher education. First, *the days of central planning are gone*. Students are potentially well-informed consumers, better able than planners to make choices that conform with their interests and those of the economy. Though that proposition is robust, there is an important exception: people from poorer backgrounds might not be fully informed, emphasizing the need for scholarship finance.

On the supply side, central planning, whether or not it was ever desirable, is no longer feasible. In response to technological change, there are more universities, more students, and vastly greater diversity of subject matter. Thus the myth that all universities are identical and should therefore be funded equally is no longer sustainable. In principle, differential funding could be implemented by an all-knowing central planner, but the problem is too complex for that to be the only mechanism: mass higher education requires a funding system by which institutions can charge different prices to reflect their different costs and missions.

Note that this approach leads to very different conclusions for school education, where the model of the well-informed consumer is less plausible and the case for a more standardized product stronger. The argument for regulated market forces in higher education is not primarily ideological, but rooted in the economics of information.

A second lesson from economic theory is that *students should contribute to the cost of their degree*. Higher education creates benefits that transcend the individual—benefits in terms of growth, social cohesion, and the transmission of values. Thus, taxpayer subsidies are rightly part of the landscape. However, students also receive significant (often substantial) private benefits. It is therefore both efficient and fair that they bear some of the costs.

The point bears emphasis. Many people argue that tertiary education is a right and should therefore be financed from taxation. However, the fact that something is regarded as a right does not mean that it should be tax-financed. Access to nutrition is a basic right, yet nobody argues that it is wrong to charge for food. The moral imperative is not about *instruments* (for example, prices) but about *outcomes*, that is, that a bright person should be able to go to the best school or university irrespective of his or her financial circumstances. In addition, the worldwide collision between expanding tertiary education and fiscal pressures means that reliance on tax finance creates downward pressure on quality. The historical record shows that tax finance has done little to widen access, while, as noted, tax finance is deeply regressive. If it is unfair to ask graduates to pay more of the cost of higher education, it is even more unfair to ask non-graduate taxpayers to do so.

However, most students cannot afford to pay for higher education, leading to the third set of lessons from economic theory—*well-designed student loans have essential core characteristics*.

- Income-contingent repayments—repayments calculated as x percent of the borrower's subsequent earnings, collected alongside income tax—protect access because the loan has built-in insurance against inability to repay; and, because repayments are collected alongside income tax, they protect the lender from the risk of making an unsecured loan.

- Loans should be large enough to cover fees and, at least in richer countries, also realistic living costs, making higher education free at the point of use.

- Loans should attract an interest rate broadly equal to the government's cost of borrowing.

The question of interest rates is worth examining. Many

countries, including Australia and Britain, offer loans at a zero real interest rate, that is, there is a blanket interest subsidy. This policy, however, does not achieve a single desirable objective. The subsidy is enormously expensive, the resulting shortage of funds being inimical both to quality and access. This point is not fanciful. The communist experience demonstrates that subsidies can easily lead to shortages; in this case, the fiscal cost of the interest subsidy results in loans that are too small—which harms access—and simultaneously crowds out taxpayer support for universities—which harms quality. To make matters worse, interest subsidies are deeply regressive. They do not help students (graduates make repayments, not students). They give relatively little help to low-earning graduates, since unpaid debt is eventually forgiven. They do not help high-earning graduates early in their careers—with income-contingent loans, monthly repayments depend only on earnings; thus interest rates have no effect on monthly repayments, but only on the duration of the loan. Accordingly, the major beneficiaries are successful professionals in mid career, whose loan repayments stop earlier because of the subsidy than would otherwise be the case. This is not the target group that education policymakers had in mind. In contrast, *targeted* interest subsidies are useful.

The resulting strategy

The theory suggests a three-part strategy:

Element 1, deferred variable fees: Universities are financed from a mix of taxation and tuition fees. Each university sets its fees, which are covered by a loan entitlement. Variable tuition fees are controversial in Europe, although less so in Central and Eastern Europe, and are taken for granted in the United States and many countries in Asia. Fees give universities more resources to improve quality and, through competition, help improve the efficiency with which those resources are used. That is not an argument for law-of-the-jungle competition but for regulated markets. Counter-intuitively, variable fees are also fairer since they reduce the regressivity of a system based on tax finance.

The obvious argument against fees is that they deter students from poor backgrounds. That is true of up-front fees, but not when students go to university free and make a contribution only after they have graduated. This brings us to the second part of the strategy.

Element 2, income-contingent loans: Student support is provided through a loan with income-contingent repayments. The loan entitlement should be large enough to cover fees and, in richer countries, living costs, with an interest rate broadly equal to the government's cost of borrowing.

If loans cover fees, the package closely resembles “free” higher education. Students pay nothing at the time they go to university. Part of the cost is paid through taxation and part through their subsequent income-contingent repayments. From the viewpoint of the graduate, the latter differ from tax in only two ways: they are paid only by people who have been to university, and they do not go on forever. Thus, income-contingent loans are logically equivalent to free higher education financed by an income-related graduate contribution.

The viewpoint from the ministry of finance is somewhat different. Though loans eventually bring in private resources, a loan scheme, by definition, has up-front costs because it lends the money first and receives repayments later. It is therefore useful to distinguish the fiscal costs of loans (that is, money that is never repaid, for example because of an interest subsidy) from the cash flow costs, which relate to money that is eventually repaid. Fiscal costs are a major concern in all countries; and in poorer countries, the cash-flow costs are also a major concern. Ideally, it should be possible to meet those costs by borrowing from the private sector, but—particularly in a developing country—private lenders will charge a substantial risk premium unless there is a government guarantee; and if there is a government guarantee, the loans will be classified as public. Potential solutions exist in this highly technical area, but require considerable care in design.

“The challenge is to finance tertiary education in ways that promote quality and avoid crowding out primary and secondary education.”

Element 3, active measures to promote access: The first two elements free up resources to finance the third—active measures to promote access. There are two causes of exclusion: financial poverty and information poverty. Any strategy for access must address both. Financial measures include scholarships. Information poverty is inadequately emphasized. Action to inform school children and raise their aspirations is critical. The saddest impediment to access is someone who has never even thought of going to university. Moreover, students who are badly informed about the costs and benefits of higher education will be reluctant to borrow—this is the group for whom taxpayer support is essential. Finally, problems of access cannot be solved entirely within higher education. More resources are needed earlier in the system, not least because of the growing evidence that the roots of exclusion lie in early childhood.

Reforms in Britain

Reforms in 1998 brought in income-contingent loans, for which loud cheers. Beyond that, however, the system in Britain had serious problems:

- central planning continued, with controls over student numbers and fees;
- fees were introduced, set by the central government and the same for all subjects at all universities; and there was no loan to cover fees, making them an up-front charge;
- loans were too small to cover living costs, let alone fees, and incorporated a blanket interest subsidy; and
- the reforms abolished the previous system of tax-financed student support.

The reforms enacted in 2004 address most of these problems and broadly conform with the three-part strategy above, offering a useful framework for other countries.

Tuition fees. From 2006, the reforms replace the up-front flat fee with a variable fee between £0 and £3,000 per year. Students can pay the fee up-front or can take out a loan, in which case the student loans administration pays the fee directly to the university, whose financial position is therefore broadly independent of how students choose to pay their fees. This is a regulated market, notably through the imposition of a maximum level of fees. As discussed earlier, variable fees improve efficiency. They are also fairer: they reduce the regressivity of tax finance, and they are directly fairer, in that students do not have to pay the same fee at a small local institution as at an internationally famous one.

Loans. The 2004 reforms improved the system by extending loans to cover tuition fees and by increasing the loan for living costs. They also raise the threshold at which loan repayments start: from 2006, graduates will repay 9 percent of earnings above £15,000 per year (the previous threshold was £10,000).

From the student’s perspective, the situation is little different from the days of “free” higher education: her fees are paid on her behalf, and money is paid into her bank account to cover living costs. From the graduate’s perspective, there is an additional payroll deduction, alongside income tax and social security contributions until the loan is repaid.

In one important respect, however, the loan arrangements conform with neither theory nor best practice—the 2004 reforms continue the interest subsidy.

Action to promote access. The 2004 Act restored grants (income-tested scholarships). From 2005, students from poor backgrounds will be entitled to a grant of £2,700 per year, in addition to a loan. The intention is that no student from a poor background will be worse-off because of the reforms. In addition, there is help for people with low earnings after graduation—any loan not repaid after 25 years will be written off. And 10 percent of the loan of new teachers in shortage subjects is written off for each year in the state system.

The Act also brings in an Access Regulator—another aspect of a regulated market—whose task is to ensure that universities have satisfactory plans to widen access. Those plans can include scholarships for students from poor backgrounds, and outreach to schools to improve the information available to schoolchildren.

These arrangements, which come fully into effect in 2006, bring in additional resources and strengthen competition, both of which contribute to quality, and redistribute from better- to worse-off, contributing to access. That does not, however, mean that the scheme is perfect. Some commentators argue that the cap on fees is too low. This is a balancing act. If fees are liberalized too rapidly, the delicate political balance may not hold, but if fees are kept too low for too long, most universities will charge the maximum, approximating a system of flat fees, reintroducing central planning

by the back door. The major continuing problem with loans is the expensive and regressive interest subsidy. That said, there is much in the U.K. reforms that other countries could usefully emulate.

The greatest challenge

Economic theory and practical experience offer solutions to avoidable problems, such as:

- a) unsustainable public spending;
- b) public spending that is hijacked by the middle class;
- c) loans absent, or badly designed, so that they bring in few, if any, extra resources;
- d) economic constraints on universities, which reduce incentives for efficiency; and
- e) specific design features that are costly (interest subsidies), administratively demanding (income testing), or both.

These are widespread, though (b) and (d) are less of a problem in countries with variable fees.

The three elements in the strategy above—deferred variable fees, income-contingent loans, and active measures to promote access—are applicable to any country that can collect income tax, and hence student loan repayments, effectively. They offer a benchmark against which countries can assess future policy directions (see box).

The state of play elsewhere

All major industrialized countries are grappling with the issue of financing higher education. The British government showed considerable courage in addressing serious political obstacles. Other governments will have to do the same sooner or later. Their task should be made easier by the example of countries like Australia, Canada, New Zealand, and the United Kingdom.

- The *United States* does well on fees, but less well on loans, which are not income-contingent, nor collected as a payroll deduction, and generally attract an interest subsidy, and less well also on promoting access, since scholarship arrangements can be criticized both for parsimony and complexity.

- *Canada* is actively considering income-contingent loans.

- *Australia* introduced fixed tuition fees (that is, the same fees for all subjects at all universities) in 1989 and has only recently and partially started to liberalize the system. Australia also has income-contingent loans, but the loan incorporates an interest subsidy and does not cover living costs.

- *New Zealand* came close to getting all three elements right in the 1990s but was burnt by moving too fast and, as a result of electoral pressures, reintroduced costly interest subsidies in 2000.

- Most countries in mainland *Western Europe* and the *Nordic countries* have yet to address fees. In many European countries, tuition fees for higher education are a no-go area—a Nordic education minister used the word “taboo.”

For developing countries, however, a challenge that haunts commentators is how to design a loan that mimics income-contingent repayments when there is a large informal sector and only limited capacity to collect income tax. This is, perhaps, the greatest challenge of all.

If the necessary prerequisites are not in place, the wrong option is to instigate a large-scale loan scheme and assume that things will somehow turn out right. What other options might be available?

- finance higher education out of taxation on a small scale (say 1 percent of GDP) to provide good quality higher education for a few students, or lower quality for more students;

- rely on private finance, accepting that this will restrict access to students whose families can afford to pay and, perhaps, a small number on scholarships;

- introduce a small-scale loan scheme, accepting that it will have a high default rate and high administrative costs;

- use taxpayer resources to pay for (say) two years of university education, leaving the rest to private finance; and

- use development assistance to ease the trade-offs between the previous methods.

The disadvantages of private finance or a premature loan scheme are clear. It may be that the last two options, designed as a package, offer the best short-run use of limited public finance and, by avoiding a loan scheme that becomes discredited, leave open the option of introducing loans once institutional capacity allows. At that stage, the existence of an effective mechanism for collecting repayments opens up the possibility of raising part of the start-up costs from non-governmental sources, including international financial organizations and commercial lenders.

Complementarity of education

The arguments about tuition fees and the analysis of income-contingent loans apply to tertiary education more broadly. And tertiary education should be seen also in the broader context of education over the course of a person's life. Growing evidence points to the complementarity of different levels of education: tertiary education is more productive if it rests on a solid foundation of high-quality early education, and early education is more productive if it is reinforced by secondary and tertiary education. Thus the challenge is to finance tertiary education in ways that promote quality and avoid crowding out primary and secondary education. ■

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For a fuller discussion, see Nicholas Barr, 2004, “Higher Education Funding,” Oxford Review of Economic Policy, Vol. 20, No. 2 (Summer), pp. 264–83, and Nicholas Barr and Iain Crawford, 2005, Financing Higher Education: Answers from the U.K. (London and New York: Routledge).



Designing a Global Compact on Education

A math class in Nigeria.

Gene Sperling and Rekha Balu

Free, quality universal basic education is achievable

THE STATE of education in the world is a silent emergency—over 100 million primary school-age children are out of school, 150 million children in school are likely to drop out before completing primary school, more than half of all girls in Africa never enroll in school, and less than one-third of children in Africa and South Asia can read and write. While CNN cameras will never capture a child dying from lack of education, every day children die from AIDS, malnutrition, and other conditions that might have been prevented had their mothers had a chance to complete a quality basic education.

When the global community established universal primary education as a Millennium Development Goal (MDG), and more than 180 nations signed on to even broader goals at the World Education Forum in Dakar in 2000, it represented a clear political commitment to develop a global compact to achieve “Education for All.” While some have

defined the goal as primary education, constituting 5–6 years of schooling, we and a growing number in the education field have defined the challenge as quality universal basic education—which calls for 8–9 years of education. At the heart of this compact, as indicated in the Dakar Framework of Action, was an obligation for developing nations to create an education plan with adequate domestic resources, political leadership, governance reforms, accountability, and transparency, as well as special initiatives to reach girls and other vulnerable children, such as children with disabilities, refugees, orphans, and those impacted by HIV/AIDS. This principle of national ownership and commitment to reform was deemed essential not only for any major expansion of quality basic education but also for convincing donor nations that extra resources would be effectively employed.

If the international community seriously wants to achieve a global compact, the ques-

tion is how the donor component can be structured to maximize incentives for developing countries to both attempt and succeed at ambitious expansions of free, quality universal basic education. This article explores the elements of a successful compact: its precise structure, the guiding principles, and how to include the right incentives.

Critical ingredients of a compact

International development discussions are often locked in an impoverished debate over whether money or reform is most critical to achieving universal basic education. The reality is that both are essential, so the compact must be structured to spur reform and fund worthy plans. With this in mind, the **first key ingredient is creating a reliable, long-term contingent commitment of resources**. Contingent funding only releases financing to countries after they have developed and instituted the political reforms and resource allocations necessary to implement credible education plans. The prior and reliable nature of the commitments provides countries the assurance that if they fulfill their obligations and pursue reforms, donors will deliver promised funding. The contingent aspect assures donors that funds will only begin flowing when countries develop and implement quality education plans. Such commitments are vital for several reasons.

- *Ensuring that major expansions do not reduce quality.* Without significant contingent commitments from donors, those countries that undertake a major expansion of access to education can suffer serious declines in quality—the student-teacher ratio may zoom to 100:1 from 50:1 in ill-equipped classrooms. The heads of state in Uganda, Kenya, and Tanzania all made major commitments in recent years to abolish fees and saw enrollments skyrocket by millions overnight. In Uganda, enrollment rose in 1996 from 3.4 million to 5.7 million students; in Kenya in 2003, from 5.9 million to 7.2 million students; and in Tanzania in 2002, from 1.5 million to 3 million students.

While millions of poor children have clearly benefited from the elimination of these financial barriers to schooling, such dramatic expansions without an equivalent boost in resources to compensate for lost fees and support the increased numbers of students can create a quality dilemma. In Uganda, for example, while more students gained access, the explosion in class sizes—without more external assistance—caused a significant drop in the percentage of students receiving satisfactory scores in mathematics and English. The answer to this dilemma is neither to forgo such admirable efforts to eliminate fees nor to discourage such leaders from seizing critical political moments to push their nations toward universal basic education. Instead, what is needed is substantial contingent donor funding to encourage well-planned expansions.

- *Encouraging reforms with long-term funding for recurrent costs.* Dramatic expansions of primary school completion can only be accomplished with a comparable expansion in the number of teachers. Yet teacher salaries constitute the largest component of an expansion—usually averaging over 80 percent of education budgets in major developing

nations—and they are recurrent costs. As a result, countries hesitate to hire the extra teachers necessary to expand *quality* education because of both a lack of resources and a lack of certainty about the durability of those resources.

Even where significant donor funding is provided, the short-term nature of such funding discourages countries from proceeding with major teacher expansion. Many donors, from the World Bank to the U.S. Millennium Challenge Account, commit funding in three-year grant cycles. Yet, because it can take two to three years to simply recruit, train, and locate teachers in rural areas, developing nations often do not embark on major expansions because they fear that funds will be cut off just as they have finally deployed teachers to critical areas. The Minister of Education of Rwanda told us there is even a name for this: “aid shock.” In addition to the constraint of three-year grant cycles, development assistance often will not help fund teacher salaries because it is a recurrent cost. The World Bank awarded Kenya’s education system a \$50 million, three-year grant in 2003—but the grant was focused on building schools or buying textbooks and did not cover teachers’ salaries.

- *Empowering reformers and creating positive competition.* As the expansions in basic education call for major upfront investments, but deliver returns only over a generation, large-scale education reform often loses out to an immediate crisis or tangible infrastructure project that a political leader can take credit for during his term. Certain, contingent funding is critical because it provides reformers within and outside of governments with the leverage to push for difficult reforms with the confidence that these reforms will at least win external financial support. Furthermore, when a country sees its neighbors winning resources after committing to specific universal education reforms, it begins a competition with its neighbors to pursue equally ambitious and difficult reforms—as happened after debt relief was expanded in 2000.

The second key ingredient is getting donors on the same page—that is, harmonizing expectations and standards and coordinating funding. A credible global compact forces donors to establish a common set of standards for countries, which sends a clear message to countries about their obligations. It ensures that countries do not waste time submitting multiple applications and reports to donors. It ensures that donors are not duplicating projects or tripping over each other to support narrow pet projects. And it encourages donor coordination at the country level to review plans and coordination at the international level to decide which countries receive priority funding.

Global fund or virtual fund?

Donors and advocates over the past few years have debated the best structure for financing and coordination, revolving around two models: a global fund for education, or a “virtual fund” that coordinates donor financing.

A **global fund** for education, modeled on the Global Fund to Fight AIDS, Tuberculosis, and Malaria, would provide several unique benefits. It is easy to communicate—a global edu-

cation fund would clearly focus donor and public attention on universal basic education and the financing gap to achieve it. It offers a degree of independence and flexibility that bilateral funding may not have on its own, by creating a separate governing structure. It promises a level of rigor and developing country involvement through peer review of countries' funding proposals and national plans. Finally, it easily pools resources, from both governments and private sector donors, who are not yet large-scale players in global education.

But such a fund, free of individual donor nations' control, is a double-edged sword. The lack of control over the distribution of funds can be a disincentive for serious resource commitments from major donors. Many advocates and development officials also are skeptical of the virtues of building extra bureaucracies or fear a long time lag for fund disbursements.

The *virtual fund* idea is to create a *process* for donors to coordinate funding through existing bilateral and multilateral institutions without ceding control over development assistance to a new fund. This model responds to donors' and advocates' concerns on multiple levels. It avoids creating a new bureaucracy with unnecessary overhead. It requires a common set of benchmarks for countries' plans. And it avoids duplication of projects through a donor review of plans at the country level that is triggered by countries' proposals and realistic estimates of their financing gap.

But while a virtual fund may be a suitable compromise for donors, it presents its own challenges. Donor control means that plan reviews are not independent and donors' interests, rather than countries' education policy needs, may influence funding priorities. In addition, the role of a virtual fund is simply difficult to explain or communicate to the public and even to developing countries.

Following the Dakar forum, a couple of proposals emerged for a global fund on education, including a proposal by one of the authors (Sperling, 2001). Yet the idea of a global fund received a cool reception not only from donors but also from developing countries and advocates who spoke of "fund fatigue" after the successful effort to establish the current global health fund. At a high-level meeting of donors and developing countries and nongovernmental organizations (NGOs) in Amsterdam in early 2002, such resistance led to a proposal for a virtual fund, which was adopted by the Development Committee in April 2002. NGOs and developing nations then successfully pushed the World Bank to "fast-track" a few countries for funding—leading to the name the Fast Track Initiative (FTI).

Assessing the Fast Track Initiative

Has the FTI, still a work-in-progress, fulfilled the two key requirements for a global compact on education? On the coordination and standards front, it has been successful in a number of ways.

- The FTI is now an ongoing institutional structure, led by the Group of Eight chair each year, which meets regularly

to review education plans at the international and country levels.

- Donor representatives jointly review a country's plan, recommend to the FTI partnership whether the country should join the initiative, and coordinate on funding. In Honduras, for instance, Japan and Canada collaborated to fund additional teacher training and textbooks to help it achieve its Education for All plan.

- There has been a coordinated effort with UNESCO to develop uniform benchmarks for what constitutes an acceptable Education for All plan. For example, the FTI benchmarks suggest the allocation of 20 percent of national budgets to education, the elimination of school fees, a target of 40:1 student-teacher ratios, and repetition rates not above 10 percent. While these benchmarks are still being debated—there has been some controversy about specifically limiting teacher salaries to a multiple of per capita GDP—the benchmarks at least provide a framework for discussion and evaluation.

- Without the FTI as a coordinating mechanism there would be no ongoing structure to even debate what is and is not working in the development of a global compact on education.

“The commitment of aid needs to go beyond two- or three-year blocks of funding and instead come in five- to ten-year cycles.”

While the FTI has proved successful at disbursing funds to countries, it has not come close to providing certain, contingent funding. On the positive side, France, the Netherlands, and the United Kingdom, together with several other donors, have committed \$348 million in 2005 to 12 countries endorsed by the initiative—although there is still an annual financing gap of \$289 million. To respond to countries without existing donor sponsors, donors established a mini-global fund called the Catalytic Fund to support such donor orphans with short-term, stop-gap funding. It is scheduled to disburse around \$30 million this year to seven countries, with a goal of \$292 million over three years.

On the negative side, these amounts comprise only a small down payment on what is needed to meet the universal basic education goal. The gap between what countries spend on education and what they need from donors ranges from \$5.6 billion (to cover six years of education) to as much as \$10 billion to cover the full eight to nine years needed for universal basic education. Yet, collectively, donors give just \$1.9 billion for education worldwide. Moreover, they have mostly funded smaller countries (such as Guinea and Niger), sometimes with a two-year lag. Stronger, quicker disbursement is necessary to create positive incentives for others to embark on large-scale reform. In addition, of about 80 low-income countries that are off track for reaching the 2015 goal, only 8 are currently covered by the FTI.

But disappointment with the lack of sizable funding has led to misplaced criticism of the FTI. It is critical to recognize that no structure could succeed on the contingent commitment side without significant resources from the heads of state and finance ministers of the major donor nations. Indeed, the multilateral FTI has been successful in setting up a structure and funding several countries in its first couple of years—which compares quite favorably with a single-nation initiative like the U.S. Millennium Challenge Account, which took three years to sign its first disbursement agreement.

While the Netherlands is providing a major amount to education in terms of its national income, no head of state in a Group of Seven country has made the FTI, or even a compact on education, a high priority and taken leadership to encourage the donor community to provide the additional \$7 billion to \$10 billion to make universal basic education by 2015 viable. Recently, however, key entities such as U.K. Prime Minister Tony Blair's Commission on Africa, and the UN Millennium Project Task Force on Gender Equality and Education issued reports calling for certain and predictable funding through the FTI. The Africa Commission specified at least \$7 billion to fund nine years of education in Africa alone, and U.K. Chancellor of the Exchequer Gordon Brown has highlighted long-term funding for basic and secondary education as a compelling argument for his International Finance Facility proposal.

Recommendations

After missing the first of two MDGs on education—that countries achieve gender equity in schools by 2005—and with a major expansion of large countries entering the FTI, the donor community faces a critical test in 2005, which it could pass if it acts on the following three recommendations:

Donors should commit funds and work within the Fast Track Initiative. As the FTI is the only current global framework for coordinating and disbursing education assistance to developing countries, donors should prioritize FTI countries and ensure that the FTI grows from a modest initiative into a fully funded global compact. To the degree that criticism of the FTI exists, donors should seek reforms to strengthen and expand its role as a global compact on education—not to dismantle it or turn it into a pilot program.

We need a major increase in contingent funding in 2005 to support 25 new countries entering the FTI. These African and Asian countries—representing at least 50 percent of the world's 104 million out-of-school children—are potentially eligible for funding. The World Bank has predicted that these 25 additional countries and the existing 12 will require at least \$2.3 billion a year for just *primary* education—an estimate that looks rather low. The new group includes major African nations, such as Ethiopia, Senegal, Mozambique, and Kenya, as well as Pakistan, which alone could require \$400 million a year in external financing. Ethiopia, which has already been endorsed, projects a financing gap of nearly \$114 million this year with more than several million children out of school. Providing full support for

these large countries' plans will not only help their children who are missing an education but will also set a powerful example for others that strong Education for All plans and efforts at reform will be supported by donors. It is crucial that the Group of Eight take leadership on providing contingent financial commitments, which over time need to reach \$7 billion to \$10 billion annually to achieve quality universal basic education by 2015.

We need to commit to predictable, long-term financing for recurrent costs. At this year's High Level Forum on Aid Effectiveness, donors took an important step forward by agreeing that aid should be stable, predictable, and arrive when promised. Donors should pledge predictable and adequate funding to close the education financing gap in developing countries in time to meet the 2015 goal. The commitment of aid needs to go beyond two- or three-year blocks of funding and instead come in five- to ten-year cycles. Even if funding is initially given in three-year cycles, donors should be clear that funding could be renewed for six- and nine-year horizons as long as developing nations fulfill their commitments under their Education for All plan. Donors should also loosen their restrictions and provide for teacher salaries in countries that provide strong mechanisms and show efforts to bring down costs, but still struggle with spending the majority of their budget on recurrent expenses such as teacher salaries. ■

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Making Aid Smarter

Dean T. Jamison and Steven Radelet

How donor support for primary education can be made more effective

PROVIDING PRIMARY school education for all the world's children will be a protracted and costly undertaking. The good news is that major donors have significantly increased their official development assistance (ODA) for education in general and for primary education in particular since 1990. Donor commitments for all education purposes reached \$6.7 billion in 2003, more than double the amount in real terms committed just six years earlier. Commitments for primary education have been rising even faster, quadrupling to \$1.9 billion between 1990 and 2003. Aid for primary education has risen much faster than total ODA, with its share in commitments rising from just 0.4 percent in 1990 to 1.9 percent in 2003 (see Charts 1 and 2).

The emphasis that individual donors place on primary education varies widely (see table). Five donors allocated more than 4 percent of their ODA commitments to primary education in 2003, while four others

provided less than 1 percent. These variations partly reflect different levels of prominence donors place on education, and partly reflect some donor specialization in different activities in an effort to avoid duplication.

Besides ODA, private foundations, non-governmental organizations (NGOs), faith-based organizations, and other charities make important contributions to education in many countries. For example, some of the most effective primary schools in Africa and Asia, particularly in rural areas, are run by religious organizations. The Organization for Economic Cooperation and Development (OECD) reports \$10.2 billion in private aid donations in 2003 for all purposes, but, by all accounts, this figure is too low, probably by a factor of two or three. There are no valid estimates for the share of these funds devoted to primary education, but it is plausible that \$1 billion or more is provided annually for primary education from private sources, in addition to the \$1.9 billion provided by official sources in 2003.

Nevertheless, while the amount of assistance committed to primary education has been rising, most analysts believe the current level remains too low, particularly to achieve the second Millennium Development Goal of universal primary education by 2015. According to the Task Force on Education and Gender Equality of the Millennium Project, reaching this goal would require an additional \$7 billion to \$17 billion per year (estimates vary), with

Children carry their chairs to school in Nicaragua.



perhaps half coming from domestic resources and the rest from foreign sources. Some analysts, such as Michael Clemens at the Center for Global Development (CGD), argue that even with large amounts of funding universal primary education is unlikely to be achieved in all countries, although substantial progress toward the goal is certainly possible.

While there are many competing demands for donor and public sector resources, the development community has long stressed the importance of both expanding primary education to previously excluded groups and improving the quality of teaching, given the expected high economic and social returns. Of course, money alone will not achieve the goals, but it can help to relieve constraints on training teachers, retaining them with adequate compensation, building schools, supplying those schools with books and other materials, and reducing or eliminating school fees.

Much depends on the actions of developing countries themselves, but donors can create efficiencies as well. To make aid smarter, donors can learn some lessons from successes in other fields, such as health, where donors have experimented with results-based incentives. This article examines how effective aid is in general and highlights potential lessons that can be applied to ODA for primary education from the substantial institutional innovations in aid delivery of the past decade. It concludes by pointing to directions donors might take to increase the impact of ODA for primary education, based on our increased understanding of the conditions conducive to aid effectiveness and of how to improve learning outcomes.

How effective is aid?

The effectiveness of foreign aid in achieving development objectives, especially in supporting economic growth, has been a subject of controversy for many decades. There are three main viewpoints that have support in the research literature:

- Aid has no effect on growth, and may even have a negative effect, because it is wasted on bad projects, engenders corruption, or undermines private investment.
- Aid has a conditional impact on growth, working *only* (or at least better) in countries with good policies and institutions. This has become the most influential viewpoint, although some of the results have come under question.
- Aid *on average* has a positive impact on growth with diminishing returns—meaning that aid has not worked everywhere, and not necessarily only in countries with good policies and institutions, but overall it has had a positive impact on growth.

In a recent CGD study, Michael Clemens, Steven Radelet, and Rikhil Bhavnani took a new approach. They disaggregated ODA and focused on the types of aid that are actually aimed at affecting growth directly and relatively quickly—aid for infrastructure, agriculture, and industry, as well as budget support—as distinct from aid for humanitarian relief, political development, or health and education (the latter of which might affect growth, but less directly and over a longer time frame). They found a strong causal relation-

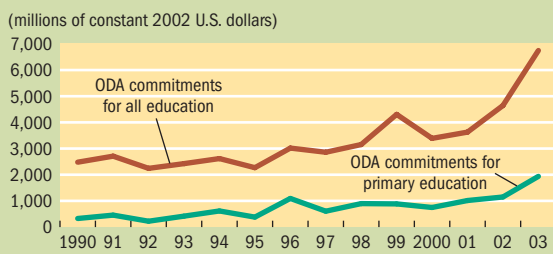
ship between this subset of aid and economic growth (with diminishing returns), a conclusion that withstood a wide variety of statistical tests. The relationship was stronger in countries with better institutions, but did not depend on strong institutions. These results suggest that aid has been more effective in supporting growth than many analysts had previously thought.

Other studies have focused on the relationship between aid and other development outcomes, particularly health. For example, the CGD study “Millions Saved” by the What Works Working Group and funded by the Bill & Melinda Gates Foundation, documents 17 major health success stories—large-scale health interventions that improved health outcomes over a sustained period—almost all of which received substantial ODA. Little such systematic research on aid for education exists. However, there are certainly many successful aid-financed education initiatives—such as the girls’ education initiative in Balochistan, Pakistan; system-wide education reforms in Ethiopia in the 1990s; Uganda’s expansion of primary education; and Indonesia’s construction of over 61,000 primary schools in the mid-1970s, which MIT economist Esther Duflo showed led to significant increases in education attainment and increased wages for school graduates.

Chart 1

Mind the gap

Donor assistance for education has doubled since 1990, with primary education trailing behind.

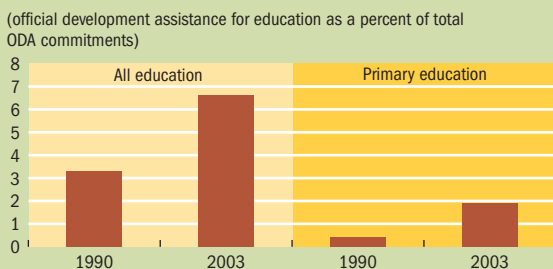


Source: OECD.

Chart 2

Not a high priority

Foreign assistance for primary education has risen sharply, but remains a small percentage of the total aid budget.



Source: OECD.

Shifting approaches

Along with these new perspectives on aid, donor practices have shifted markedly since the early 1990s as a result of the end of the Cold War and the resolution of the widespread macroeconomic crises that led to the ascendancy of IMF and World Bank stabilization and structural adjustment programs. There is a new emphasis on providing aid more flexibly to well-performing countries, and a stronger focus on achieving measurable results to show the effectiveness of aid-supported programs. Two broad funding patterns have emerged.

First, some donors have moved to providing *broad-based program, budget, or sector support*, usually for a select group of countries considered to have shown a stronger commitment to sound development policies. Several European donors and multilateral development banks now offer financing for education or health through Sector-Wide Approaches (SWAs), which provide pooled funding to support sector-specific strategies. Similarly, the World Bank has introduced its Poverty Reduction Support Credits to provide support for economywide policy and institutional reform and poverty reduction programs.

These “horizontal” approaches provide greater flexibility for recipients to allocate funding to a range of activities, allow funding for recurrent costs, and focus on building institutions and broader systems. Although these instruments are appropriate in some countries—providing flexibility and discretion makes sense in countries with a strong commitment to good development policies—they will be less so in countries with widespread corruption and poor or destructive policies. Thus, donors have made this kind of financing available in only a relatively small number of countries. The new U.S. Millennium Challenge Account, which will provide support for economic growth initiatives, shares some of the characteristics of these approaches, particularly in its strong country selectivity and focus on local leadership in determining funding allocations. However, it is too early to tell how it will operate, whether it will be used for budget support in some cases, and whether it will provide significant finance to primary education.

Second, several new initiatives provide *funding for very specific purposes*. The most prominent of these are for health, especially the Global Fund to Fight AIDS, Tuberculosis, and Malaria (the Global Fund) and the Global Alliance for Vaccines and Immunizations (GAVI). In education, a Fast

A cup half full

While commitments to education vary by donor, primary education tends to get less attention.

Official development assistance (ODA), DAC¹ countries, 2003 (Allocations for education and basic education as a percentage of total commitments)

	All education	Basic education
Australia	7.7	3.3
Austria	27.3	1.2
Belgium	6.7	0.4
Canada	16.9	6.9
Denmark	4.4	1.4
Finland	10.6	0.8
France	17.6	2.9
Germany	17.4	1.5
Greece	35.2	14.3
Ireland	14.4	n.a.
Italy	1.9	0.0
Japan	6.5	0.4
Luxembourg	n.a.	n.a.
Netherlands	7.1	4.8
New Zealand	23.8	2.7
Norway	9.1	4.8
Portugal	34.3	2.2
Spain	11.1	2.1
Sweden	4.7	1.5
Switzerland	4.1	1.4
United Kingdom	8.6	5.8
United States	1.3	1.1
Average	7.7	1.9
Memo items: all development finance (ODA and non-ODA)		
European Community	6.8	2.6
World Bank	5.7	3.8
Regional development banks	10.0	1.4

Source: OECD, Statistical Annex of the 2004 Development Cooperation Report, Table 19, www.oecd.org/dac/stats/dac/dcrannex.

Note: n.a. indicates data are not available.

¹DAC countries are the 23 members of the Development Assistance Committee of the OECD listed in the table.

Track Initiative (FTI) has been established to facilitate attainment of education for all. The FTI includes a Catalytic Fund (see “Designing a Global Compact on Education” on page 38 of this issue) to help ensure resource availability to countries neglected by major donors, although it is far less structured, with more general goals than these other funds.

The Global Fund is a Geneva-based foundation set up in early 2002 to stimulate a substantial increase in financing for programs to fight the three diseases. It has grown quickly: as of early 2005, it had approved funding for 294 programs in 129 countries—a larger profile than almost any other donor—with signed two-year grants agreements totalling \$2.3 billion and disbursements of over \$1 billion. The fund’s structure differs from traditional aid institutions in several ways. It has a very small bureaucracy with no in-country staff, acts only as a financing instrument (it does not implement programs or provide technical assistance), and has a strong focus on results. It relies on recipient-driven strategies with an open and participatory approach and a strong role for civil society groups in both program design and implementation.

GAVI (along with its funding arm, the Vaccine Fund) was founded to boost childhood immunization coverage, which began to fall in the 1990s after making important gains in the 1980s. GAVI is a public-private partnership: its largest backer is the Bill & Melinda Gates Foundation, augmented by donations from several international agencies. Partners include the World Health Organization (WHO), UNICEF, the World Bank, bilateral donors, technical agencies (such as the U.S. Centers for Disease Control and Prevention), and the private sector, including both multinational and developing country vaccine suppliers. It coordinates action and policies in global immunization—for example, by working to align the advice given by WHO and UNICEF to ministries of health about priorities for their immunization programs. It also advances important new funding: in some countries GAVI’s efforts have led to a doubling or tripling of the amount spent on immunization. GAVI’s resources initially support increased coverage in traditional core vaccines and capacity strengthening; over time it will increasingly support the introduction of new vaccines.

A special feature of GAVI is its “reward for performance,” through which it provides incentives for expanded coverage in two ways. First, GAVI ceases funding if countries do not

achieve specified immunization coverage targets. While many donors make this pledge, GAVI is an exception in that it carries it out. In late 2003, it terminated grants to 10 countries that had failed to achieve specified goals. It has also increased funding for 23 countries that achieved their immunization coverage goals. Second, in some programs it directly rewards performance by simply paying \$20 per additional fully immunized child, approximately equivalent to the cost of fully immunizing a child under typical developing country conditions. Half of the money is paid in advance, with the remainder paid upon proof of immunization. There are no strings attached to the use of the funds, other than showing proof of having achieved specified immunization targets.

Does the health sector experience provide lessons for ODA in education? GAVI's performance-based budget support may have wider applicability for education initiatives, as recipients could be rewarded for increasing student hours in school, teacher-student ratios, number of classrooms, or other measurable intermediate outcomes.

The Global Fund and GAVI have also helped with donor resource mobilization. The growth in ODA for primary education suggests that resources can be mobilized through traditional institutions, although substantially more funding will be needed, including for the FTI's Catalytic Fund, to achieve universal primary education. The tight focus of vertical programs facilitates the diffusion of best practice, accountability, performance measurement, and communication to political stakeholders. Such programs help ensure that ODA resources actually expand a critical activity rather than substituting for government resources that may be reallocated to altogether different objectives. Budgetary support or SWAPs for primary education are, in essence, already vertical programs that can provide knowledge transfer when traditional donor staff are technically up to date. Hence large-scale new enterprises like GAVI and the Global Fund may be less important for primary education, although their success does suggest the value of ensuring that FTI has strong technical capacity and that the Catalytic Fund has adequate resources.

Making aid more effective

Recent initiatives in aid delivery have helped put the focus on making aid more effective and on improving its quality. To reinforce these trends, we believe donors should focus on the following:

ODA needs to be more long-term, more predictable (so long as specified goals are being accomplished) and more flexibly disbursed. Donors have stated their commitment to move in this direction. This is particularly important in the context of program funding, SWAPs, and other cases in which ODA is used to fund recurrent expenditures (such as teachers' pay). Where donor funds are shorter term or less predictable, it is more risky to fund recurrent costs, and in these cases, ODA should focus on technology transfer and capital investment—for example, by revising and printing textbooks, training teachers, developing systems for testing, monitoring and evaluation, upgrading facilities, and improving financial management and procurement capacity.

Budget support for primary education could be more performance-based. As with immunization, coverage of primary education is measurable (public expenditures, enrollment rates, contact-hours per student per year). If ODA is disbursed against indicators like these, it is possible to provide

Underused tools for improving primary education

The second Millennium Development Goal states: "Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary education." To achieve this, countries will have to invest in *enrollment and retention*—increasing the number of students completing 5 or 6 years of primary education; *intensity of instruction*—increasing the number of contact hours per student per year; and *quality*—increasing the learning rate (test score improvement per contact hour). What approaches might they take? The following are successful but underutilized methods; foreign aid can facilitate diffusion of these best practices:

- **Eliminate user fees** (for enrollment and retention). Increasing evidence shows that this stimulates demand (see "Keeping the Promise" and "Designing a Global Compact on Education" on pages 26 and 38 in this issue).
- **Implement "conditioned transfer for education" programs** to increase enrollment and intensity of instruction. Latin America has had much success (Project Progressa in Mexico, for example) with what are essentially negative user fees for the poor to stimulate enrollment and attendance (Morley and Coady, 2003). School meal programs serve a similar function.
- **Encourage increases in the number of per student contact-hours of instruction**—both per year and that every child should minimally receive. Christopher Colclough and his colleagues, in UNESCO's *Education for All Global Monitoring Report*, suggest 850–1,000 hours per year, far more than current levels in many countries. Contact hours will increase both through measures to encourage student and teacher attendance and by mandating longer school years.
- **Provide a basic school health package.** The World Bank's Donald Bundy and his colleagues have summarized extensive experience on the content and consequences of school health programs, which will in most cases include treatment for intestinal worm infections.
- **Ensure that every child has a textbook in every subject** and, beyond that, that there is an ample supply—some argue for a "flood"—of other books for children. In the Philippines, impact evaluation of a nationwide textbook program found major learning gains.
- **Selectively introduce instructional radio** to improve the quality of core instruction in mathematics, national language as a second language, and perhaps science. Evaluations in Latin America, India, and sub-Saharan Africa have found even larger learning gains than with textbook provision and improvements in school attendance.
- **Measure outcomes**—including enrollment rates; attendance rates and actual contact hours per student per year; and test scores in key subjects. Make the results public and recognize that measurement costs money.

the flexibility of budget support with the accountability of achieving specific objectives. Dean Jamison has outlined mechanisms to ensure that the level of budget support can remain sensitive to the level of performance—that is, incentives can be maintained as GAVI has done—even if the overall level of budget support declines with income growth. Tore Godal, the founding Executive Secretary of GAVI, has recently pointed to the importance of careful—and independent—monitoring and evaluation to judge performance both for release of funds and for learning about approaches that work.

Special funds are needed to fill gaps. The positive experience with special purpose funds in health points to the importance of ensuring adequate resources for the Catalytic Fund of the Education for All Fast Track Initiative.

ODA should support diffusion of best practices. This is likely to require new investment in the technical competence of the staff in ODA agencies. One key purpose of country-specific ODA in education is to diffuse appropriate technology and best practices to improve learning outcomes (test scores) by pointing both to the economic returns to better quality (See “Why Quality Matters in Education” on page 15 of this issue) and to well-established means for improving it. Central governments—supported by ODA—can facilitate diffusion of best practice to school-level decision makers. The box on the previous page reviews areas where best practices have been identified but insufficiently diffused. The interventions listed overlap but go beyond the suggestions of the Millennium Project’s Task Force on Education and Gender Equality.

Research, development, testing, and evaluation (RDT&E) in education should be ODA-funded. Most elements of RDT&E are international public goods. When they are worth financing, they are best financed for the most part from international resources. ODA-financed institutions in agriculture and in health have allocated substantial resources to basic research and new product development. In contrast, the ODA community in education, with some important exceptions, has placed relatively low priority on generation of new knowledge and products (such as educational technologies).

This low priority might suggest an assessment that the returns to investment in education RDT&E are low, but a strong case could be made to the contrary. International comparative testing to measure performance in mathematics and science has become a staple of assessing the relative performance of education systems of high-income countries and, with World Bank support, a few low- and middle-income countries have participated as well (see “Picture This” on page 24 of this issue for results from some countries). The case is strong for allocating an increased fraction of ODA for primary education to RDT&E. Possible priority areas include: generation of internationally comparable data on education resource use (national education accounts), on contact hours of instruction and on test scores in key subjects; development and evaluation of improved textbooks, educational technologies, school health interventions, and mechanisms for teaching in multi-grade and multi-lingual environments; research on determinants of enrollment, attendance, repetition and persistence in schooling; and research on determinants of the distribution of cognitive outcomes in age-cohorts of students.

* * * * *

In sum, there is potential for substantial progress by 2015 toward achieving universal primary education. Challenges will remain in terms of how much education is received (contact-hours of instruction per year), in terms of quality, and in terms of the need to go beyond primary education. Well-designed ODA programs have important roles to play in meeting these challenges. ■

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Traders on the stock market floor in Buenos Aires, Argentina.

Small Fish, Big Pond

What is the future for developing country capital markets in a globalized economy?

Augusto de la Torre and Sergio Schmukler

THE world's financial system—and particularly capital markets—has undergone substantial changes during the past three decades, with financial depth, diversity, and globalization increasing sharply. While most of this change has taken place in financial centers and developed countries, it has also occurred in developing countries to a significant extent. Many developing countries tried to deepen their securities markets by introducing major reforms, especially during the 1990s. They liberalized their financial systems, improved their investment climates (through macroeconomic stabilization and better business environments), developed new supervisory frameworks and institutions, and improved the basic infrastructure for capital market operations. Many countries also implemented comprehensive pension reforms and privatized state-owned enterprises, hoping to encourage capital market development.

As reforms intensified, so did expectations regarding capital market development in developing countries. These high expectations, however, have not been met in many countries. After nearly two decades of reform, the state of capital markets in developing countries is quite mixed. The pace of growth, though rapid overall, has not been as dramatic as in developed nations. Some developing countries have experienced stagna-

tion or even contraction of their securities markets, particularly for equity and domestic currency-denominated bonds. Latin American countries, in particular, have embraced financial globalization more vigorously than have Asian countries, but have lagged considerably behind Asia in terms of deepening their domestic securities markets. These developments are disheartening: they are too meager a payoff relative to the intense reform efforts. They are also puzzling because of the lack of clarity and consensus on how to modify the capital market reform agenda.

This article attempts to shed some light on the mixed results, arguing that greater attention must be given to the roles that globalization and size play in securities markets development. It concludes that policymakers will need to reshape their expectations and take a new approach to building up domestic capital markets.

Insights into weak capital markets

It is difficult to explain the poor performance of domestic stock and bond markets across developing countries with reference only to macroeconomic and institutional fundamentals—such as monetary stability, overall economic development, economic size, and rule of law—or capital market-related reforms. In fact, the empirical results of a recent World Bank

study comparing Latin American capital markets with those of other regions show that better fundamentals foster *both* domestic stock market development and its internationalization—in terms of the issuance and trading of securities abroad—but not symmetrically. As fundamentals improve, stock issuance and trading abroad actually increase *relative* to domestic activity. Similarly, the introduction of capital market-related reforms has a larger positive impact on stock market internationalization than on local stock market activity.

Contrary to expectations, this internationalization of equity markets has, in addition, not “crowded in” local market activity. Instead, in many cases, local stock market liquidity has been undercut. As the local liquidity of firms that issue securities on overseas stock markets declines, negative spillovers occur: the liquidity of the firms that do not go abroad is negatively affected. Moreover, there are trade diversion effects. The remaining liquidity in the domestic stock market tends to concentrate on the firms that have already accessed international capital markets.

These effects have been particularly strong in Latin America, resulting in the slow development of domestic securities markets. Latin American local markets are not only below what could be expected, given the region’s economic and institutional development, they have also been less responsive to the introduction of reforms. Conversely, Latin America exhibits an “excess” degree of stock market internationalization, which is partly explained by the intense privatization process that led to a shift of new issues to international markets and has been reflected in significant delistings (see chart). While certainly an outlier, Latin America is not alone, as some of the smaller developed and developing countries in Europe are facing simi-

lar patterns. East Asia, in contrast, displays a different behavior, with several of its domestic markets for equities and corporate bonds developing relatively well.

A puzzling gap

How do these results help explain the gap between the high expectations and intense reforms of the 1990s, on the one hand, and the low level of development of domestic capital markets, on the other? They give reason to question whether traditional views on the gap hold up. One such view ascribes the gap to impatience, and imperfect and incomplete reform efforts, recommending that market forces be given time to work while forging ahead with further reforms. In this view, the basic elements of necessary reforms are well known—since “best practices” are already described in various international standards and codes. But this view largely ignores the finding that improvements in institutional and macroeconomic fundamentals and the introduction of reforms spur not only domestic securities markets development but also—and to a greater extent—the increased tendency to issue and trade securities abroad. While not invalidating the importance of reforms, this finding clearly calls for a major change in expectations and suggests that the issues associated with financial globalization must be revisited to reshape expectations appropriately.

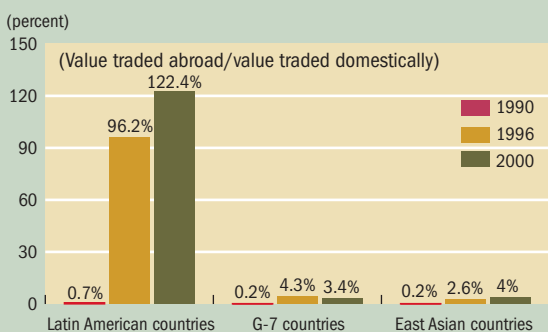
Another view claims that the gap is due to faulty reform sequencing. It stresses the importance of establishing a good institutional and regulatory framework and developing a local market for domestic currency-denominated debt before financial market liberalization. There is nothing wrong, in principle, with the prescription to postpone full capital account opening and unrestrained competition until certain conditions are in place. But the political economy reality is that institutional reform does not happen simply because of good logic, which in most cases is insufficient to dislodge the resistance coming from those who feel the losses from reform up-front and can organize vigorously to resist change. By contrast, gains from reform accrue in the future and are spread among numerous winners who, as a result, face a collective action problem. With little incentive to act as a group, they tend to remain relatively voiceless and unorganized. Historical experience amply illustrates that external competition induces insiders to become more efficient and, as a result, changes incentives vis-à-vis reform—pushing efficient incumbents to become supporters of the very reforms they had previously resisted.

The bottom line is that both of these views either leave out or fail to adequately address critical elements. The World Bank study offers a complementary view that emphasizes the need to step back and reconsider the implications of certain basic issues—such as financial globalization, liquidity, diversification, and size—as a prior step to a more solid reformulation of the reform agenda.

Role of financial globalization. Financial globalization complicates policy actions in debt and equity markets in different ways. In debt markets, globalization magnifies problems associated with weak currencies. The current globalization wave—which is unfolding in a context of floating exchange rates—bestows benefits that increase depend-

Greener pastures

The proportion of Latin American equity securities traded abroad significantly exceeds that of other regions.



Sources: Bank of New York and Standard & Poor’s Emerging Markets Database.

Note: The series are calculated by aggregating firm-level data for each country. The chart plots the averages across countries of the ratio of the value of equity securities traded on U.S. stock exchanges (as American depositary receipts) relative to the value of equity securities traded on local stock markets. The data for Group of Seven countries are averages for Canada, France, Germany, Italy, and Japan. The United Kingdom and the United States are not included because they are considered international financial centers. The data for East Asian countries are averages for Hong Kong, Indonesia, Korea, Malaysia, the Philippines, Taiwan, and Thailand. The data for Latin American countries are averages for Argentina, Brazil, Chile, Colombia, Mexico, Peru, and Venezuela.

ing on how well the local currency performs two functions simultaneously: that of shock absorber and that of a reliable store of value for savings. Performing these two functions well is already difficult for all but the few currencies used internationally as reserve assets. It is drastically more complicated if, in addition, the local currency is not fully accepted, even at home, as a reliable receptacle for savings. This situation encourages the arrangement of financial contracts that are either heavily dollarized (in a strong foreign currency) or predominantly of short duration, creating large unhedged exposures in debtors' balance sheets that make the financial system vulnerable to sudden, large depreciations of the real exchange rate or increases in the real interest rate, respectively. In these circumstances, policy is not only constrained but it is also liable to be torn between the goals of the currency as a shock absorber and store of value.

In contrast, the internationalization of equity markets does not create balance sheet mismatches for equity issuers and therefore does not create systemic vulnerability, even if the integrating country has a weak currency. Equity contracts are not subject to default risk because they do not commit the issuer to paying flows that are independent of its performance. Although the performance might be affected by real exchange rate fluctuations, such effects are passed on to equity investors via changes in dividend payments. But because internationalization hurts the local stock market's liquidity, the internationalization of equity issuance and trading may create a policy dilemma—possibly accentuated by the fact that, as a developing economy becomes more integrated into global financial markets, incentives for issuers of equity securities rise unambiguously in favor of issuing abroad rather than at home. In effect, once corporations can break the cost and size thresholds required to issue equity at reasonable prices in the deeper, significantly more liquid global financial centers, there would be no apparent advantage in issuing in domestic stock markets.

Role of liquidity, diversification, and size. For many developing countries, particularly smaller ones, illiquidity begets illiquidity by limiting the capacity of investors to unwind their positions without affecting prices, thereby discouraging the entry of new players, which, in turn, further limits liquidity. The implications are far-reaching, given that illiquidity fundamentally hinders “price revelation”—one of the most distinctive functions of securities markets vis-à-vis banking markets. Similarly, evidence strongly suggests that, in many developing countries, domestic securities markets do not seem to add much directly to risk diversification, beyond the function already performed by local banks, while risk diversification by international portfolio investors tends to marginalize small countries and small corporate issuers.

Illiquidity and insufficiently diversified portfolios are intrinsically related to a prevalent structural feature of many developing countries' capital markets: small size. The small size of both markets and corporations matters for liquidity, which is a positive function of scale economies and agglomeration effects. When liquidity is impeded by the small size of an economy, the basic question is whether suitable domestic securities markets exist for small, open economies and what

would be their expected role. Moreover, risk diversification within small economies is limited by asset scarcity. To the extent that there is a fixed cost to invest, investors would require investments of a minimum size, which would tend to segment the market, exclude small issuers and issues, and limit the scope of risk diversification.

Reshaping the reform agenda

As policymakers weigh new approaches to developing a domestic capital market, they might want to begin by determining whether it could realistically meet the size thresholds for sustaining a liquid domestic secondary market for private sector securities. For countries that meet these size thresholds, formulating suitable reforms would be relatively easy, not least because they could learn from the experience of developed capital markets. Reforms would still need to be significantly reshaped, however, particularly to better accommodate financial globalization. Sketching a suitable reform package for a smaller country's domestic securities markets is a more daunting challenge because much more thought and analysis is needed to take into account the constraints implied by its small size. This sketch would have to be accompanied by a realistic definition of what can be expected from such unavoidably illiquid securities markets. Related issues also arise regarding the participation of small firms in capital markets, irrespective of country size.

Capital market reforms for developing countries should envisage improved integration into international financial markets with complementary financial development at home. Avoiding financial globalization is neither realistic nor desirable in the long run, not least because integration induces reform. A broader vision would emphasize linkages between financial markets and, in particular, the ways in which capital markets in developing economies can enhance the workings of the financial system as a whole. Such linkages are crucial, for instance, in the markets for housing, infrastructure, and structured finance, where local and international securities markets can help engineer suitable products, such as asset-backed securities, spreading risks among a greater number of players, and bringing new institutional investors to the scene. Greater financial market competition, coupled with constant improvements in the contractual environment, will ultimately deepen and broaden the provision of financial services, producing new “bridging” vehicles and instruments to fill any potential access gaps. ■

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This article is largely based on the Latin American and Caribbean Regional Study “Whither Latin American Capital Markets?” (Washington: World Bank), led by de la Torre and Schmukler, and several background papers. The full report and background papers are available at <http://www.worldbank.org/laccapitalmarkets>.

Brazil's Remarkable Journey

Latin America's largest economy is finally reaping the benefits of reforms

Pablo Fonseca P. dos Santos

IN MARCH 2005, Brazil announced that it would not renew its agreement with the International Monetary Fund (IMF). The decision, which comes after six years of successive programs with the IMF, marks an important milestone in what has been a remarkable economic journey.

After its recovery from a crisis following the turbulence in international markets in 1998, Brazil faced new market pressures in 2002. Investors, whose appetite for risk had declined due to events in emerging markets and corporate scandals in developed economies, remained unsure what to make of left-leaning presidential candidate Luiz Inácio Lula da Silva. A loan of unprecedented size, agreed with the IMF in September 2002, shortly before Lula's electoral victory, helped Brazil weather the storm. Since then, the economy has undergone a strong recovery and seems to be aiming for sustained growth. For policymakers, the emphasis remains on preserv-

ing macroeconomic stability and advancing a large reform agenda, mainly in the microeconomic arena.

A dramatic turnaround

What explains Brazil's economic turnaround? The country has undergone enormous change over the past 10 years on the macroeconomic front. Inflation, once the bane of the economy, has been under control since 1994. The financial system, which benefits from the participation of foreign institutions, high capitalization, and good regulation and supervision, has proved its worth, weathering several external financial crises without problems. The commitment to fiscal discipline—buttressed by the Fiscal Responsibility Law—is shared not only by the government but also by a majority of the population. The strengthening of fiscal and monetary discipline following the election has allowed the country to regain the confidence of investors. This confidence has been

bolstered by reforms of the tax system and the social security scheme for public servants, and the approval of a new bankruptcy law—reforms that could not have been achieved without strong support from Congress. There have also been several improvements in capital market and utility regulation. And the social safety net has helped cushion the effects of external shocks and the transitory cost of reforms. These reforms are now paying off:

- GDP growth reached 5.2 percent in 2004—the highest rate in a decade—and helped create more than 1.5 million jobs in the formal sector.
- The current account registered a surplus of 1.9 percent of GDP in 2004 following a strong increase in exports, which exceeded \$100 billion in the past 12 months.



A computer assembly line in northern Brazil.

- Brazil's trade surplus was the seventh largest in the world last year—despite a 30 percent increase in imports that was spurred by a strong expansion in domestic investment.

- While net public debt remains high at 51 percent of GDP, it is on a declining path for the first time in five years (see Table 1). The external net debt-to-exports ratio has dropped to a historic low of 145 percent. Also, the large trade surplus-to-imports ratio means the country can generate a sizeable free cash flow for each dollar of additional exports, making it easier for Brazil to earn the foreign currency it needs to keep servicing the debt.

- The composition of public debt has also improved. The share of domestic debt indexed to the exchange rate dropped from close to 40 percent in 2002 to 13 percent in late 2004, and the share of fixed-rate debt has increased to about 20 percent.

The government's willingness to adopt consistent policies, combined with the unwavering support of multilateral institutions such as the IMF, the World Bank, the Inter-American Development Bank, and several of their member countries, has helped Brazil get to where it is today. The IMF helped shield Brazil from market turbulence in the aftermath of the Russian crisis, the September 11, 2001 terrorist attacks, and the months leading up to the presidential elections in October 2002. The IMF program was reaffirmed by the incoming Lula administration and extended in December 2003 on a precautionary basis. In fact, Brazil chose not to use any of the money that became available after this date.

Moreover, Brazil has consistently over-performed on the core objectives of its IMF-supported programs, particularly those related to the primary surplus. Other ingredients of success have been the mutual trust and openness that have marked relations between Brazil and the IMF, with the Fund being willing to support new policies as illustrated, for instance, by its endorsement of Brazil's decision to move to inflation targeting in 1999. Together with the government's strong commitment to fiscal responsibility and a broad-based reform agenda, and in keeping with the IMF's commitment to streamline program conditionality, the performance criteria and structural benchmarks in Brazil's loan were gradually slimmed down and simplified, thus paving the way for a smooth and secure exit from IMF financing.

An evolving reform agenda

Looking ahead, Brazil needs to follow up on its achievements in the macroeconomic arena and on the reforms conducted in the late 1990s with microeconomic reforms that will further improve efficiency. Otherwise, bottlenecks and high real interest rates may once again prevent Brazil from reaching its full potential. For this purpose, a microeconomic agenda covering five

Table 1

Cutting the debt

Tighter fiscal policies have led to lower public debt.

	1999	2000	2001	2002	2003	2004	2005-Feb ²
	(percent of GDP)						
Primary balance	3.2	3.5	3.6	3.9	4.4	4.6	4.8
Primary balance target ¹	3.1	3.4	3.4	3.9	4.3	4.3	—
Over-performance	0.1	0.1	0.2	0.0	0.1	0.4	—
Net public debt	48.7	48.8	52.6	55.5	57.2	51.8	51.3

Sources: Secretariat of the National Treasury and Central Bank of Brazil.

¹Performance criteria under IMF arrangements.

²12-month flows.

main areas—credit, taxes, conflict resolution, the business environment, and social inclusion—is being implemented.

Improving access to credit. Access to credit is important for economic growth. Without a well-functioning banking system that can channel savings to productive uses, it becomes harder for businesses to invest and for individuals to make large purchases or start their own business. Credit currently amounts to only 25 percent of GDP in Brazil, compared with about 60 percent of GDP in Chile and more than 70 percent in many developed countries. And banking spreads are high, adding further to the cost of credit. Macroeconomic and fiscal factors used to play a major role, by crowding out capital markets and promoting higher risk premia. But institutional and legal problems that lengthen the process of debt foreclosure and recovery also contribute to high lending spreads.

One of the first measures to help reduce spreads was the automatic deduction of loan repayments from payrolls and pension checks, introduced in 2003. Since then, loans with this type of collateral have risen to 12 billion *reais* (\$4.5 billion). They account for about 30 percent of the stock of personal credit and have substantially lower spreads than more traditional credit arrangements (see Table 2). Improvements in how information about loan applicants is disseminated are also under way. Credit information in Brazil has traditionally focused mainly on negative information, such as defaults and delinquency. Now, good payment records are also being registered. This will foster competition among banks, contribute to lower spreads, and encourage effective bank supervision.

New regulations in the real estate sector have made it easier for home buyers and sellers to resolve conflict. The government has also created new securitization instruments and introduced legislation that provides greater legal security for the purchasing and financing of new homes. These initiatives helped the construction sector rebound by 5.7 percent in 2004 after many years of decline. The government's attention is now focused on the insurance and reinsurance business, with a view to opening the latter to competition. Finally, Brazil is weighing new legislation that would give the central bank *de jure* independence, thereby cementing the *de facto* autonomy it has enjoyed for many

Table 2

Cheaper credit

Payroll-deductible loans are much cheaper than traditional credit arrangements.

Type of credit	Average interest rate
	(percent a month)
Overdraft facility	7.8
Personal credit	4.8
Payroll-deduction loans	2.8
Car loans	2.6

Sources: Central Bank of Brazil and Ministry of Finance, Secretariat for Economic Policy.

Note: Data are from February 2005.

years. Such a move would further develop credit markets, help reduce output volatility, and increase the effectiveness of monetary policy.

Streamlining the tax system. The government will continue to simplify the tax system, something that can help reduce the size of the informal economy and enhance the efficiency of enterprises. The major federal indirect tax (COFINS, which raises about \$30 billion) was transformed from a turnover tax into a value-added tax, and the taxation of capital goods was reduced. Also, portfolio adjustments have been fully shielded from financial transaction taxes, and the tax burden on real estate securities and long-term savings, including pension funds, has been alleviated. (The pension fund industry in Brazil is among the 10 largest in the world and an important source of long-term capital.)

“Improving the quality of education and ensuring that spending reaches the poorest can help significantly reduce poverty and create opportunities for new generations.”

Looking ahead, discussions on how to further simplify—and eventually unify—the state-level value-added tax continue. The government is also looking at ways to reduce the tax burden on small and very small businesses. Since most informal labor takes place in the small business sector, these initiatives will help reduce poverty by creating new jobs and encouraging on-the-job learning.

Lowering the cost of conflict resolution. The new bankruptcy law, while safeguarding workers’ rights, has enhanced the seniority of financial claims, thereby strengthening credit supply. It has also provided stakeholders with a stronger voice, and encouraged negotiation between debtors and creditors with less judicial interference. This has improved the survival chances of viable firms, while reducing the cost of closing nonviable ones. Other judiciary reforms will increase the predictability of court rulings, making high-court jurisprudence binding in lower courts. They will also promote arbitration over litigation and ensure greater accountability through external review and comparisons of court rulings.

Improving the business environment. This is critical to boost investment and enhance growth prospects. The regulatory framework and the institutions enforcing it continue to be strengthened. Progress has been made in the electricity sector, where competition in the generation and distribution of electricity has increased, as well as in transportation, where recent rulings have boosted the confidence of operators and private investment in railroads. A bill aimed at improving the governance of regulatory agencies envisages that directors and agency heads will have fixed terms, ending midway through the presidential term for the latter group.

Efforts to foster investment in infrastructure also include recent legislation on public-private partnerships, which will ensure high standards of transparency for the public sector and adequate guarantees for private partners. A three-year pilot project, developed with the assistance of the IMF and other multilateral organizations, will channel more investment to important infrastructure projects without jeopardizing public debt dynamics, and will help the government select, implement, monitor, and evaluate infrastructure projects. Other steps to improve the business climate include reorganizing the antitrust system and implementing measures to reduce the cost of starting and closing companies. Recent surveys of Fortune 500 companies in Brazil showed that most of them are comfortable with the level of intellectual protection in the country.

Improving the lot of the poor. Brazil still has high unemployment, widespread labor market informality, and one of the world’s most skewed income distributions, making social initiatives vital. The *Bolsa Familia* cash transfer mechanism, which provides benefits linked to requirements such as school attendance, is the central program for reducing poverty, and reaches 6.5 million families. Another program is PRONAF, which encourages micro-credit and the formalization of labor relations in small-scale farming, thereby boosting productivity and improving market access for the weakest groups in rural areas.

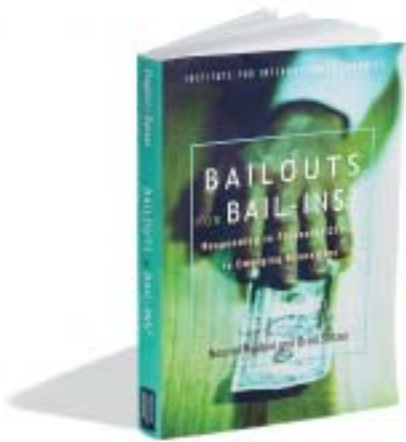
More generally, the government is committed to improving the quality of social spending. For instance, public spending on education as a percentage of GDP is, at more than 5 percent, among the highest in developing countries. But the illiteracy rate among teenagers in the less-developed northeast region is still above 6 percent and several tests point to insufficient achievement levels by students nationwide. Improving the quality of education and ensuring that spending reaches the poorest can help significantly reduce poverty and create opportunities for new generations without resulting in undue fiscal costs.

In sum

Over the past two years, strong fiscal and external accounts and lower inflation have allowed Brazil to benefit from a favorable external environment. Of course, there are still challenges, related notably to the size of the public debt. But efforts to further improve macroeconomic conditions will continue, as illustrated by the ambitious initiative, launched in March 2005, to reduce the deficit of the social security scheme for private sector workers, and the three-year budget directive law (known as LDO) sent to Congress in April 2005. This law confirms the primary surplus targets, while putting a lid on taxes and establishing a ceiling for expenditure in 2006–08. A sound macroeconomic environment will enable the government to improve the allocation of resources and push ahead with its structural reform agenda, leading to the accumulation of physical and human capital and greater social inclusion. ■

Pablo Fonseca P. dos Santos is head of the economics division in the International Affairs Secretariat of Brazil’s Ministry of Finance.

Getting real about financial crises



Nouriel Roubini and Brad Setser

**Bailouts or Bail-Ins?
Responding to Financial Crises in
Emerging Economies**

Institute for International Economics, 2004,
427 pp., \$28.95 (cloth).

This book by Nouriel Roubini and Brad Setser should be required reading for anyone dealing with emerging market countries and their debt. The authors manage to give us both a theoretical and policy perspective on the financial crises that have occurred over the past decade. By covering everything from the origins of individual crises to the official community's policy responses to those crises, they help us distil the lessons learned. They are careful to puncture prevailing myths and lay bare the differences—especially within the Group of Seven (G-7) industrial countries—that help explain the halfway houses that were sometimes constructed in dealing with the individual crises (such as the second lines of defense used in the Asian crisis countries). The text could have been more parsimonious and less repetitious. But that is a quibble! If the international community wants to better anchor the ongoing debate about the IMF's role in emerging market countries, it would do well to study this book carefully.

The authors bring a deep understanding to the topic. They understand the IMF and the dynamics of

crises—including the different sectoral origins of the recent ones and the self-aggravating nature of the forces unleashed as the initial disturbances hit. They implicitly approve of many initiatives taken to strengthen the architecture of the international financial system—including the development of data standards, increased transparency (by the countries themselves as well as by the IMF), financial sector assessments, balance sheet analysis, and debt sustainability templates. However, they fault the international community for its failure to better define the IMF's future financing role in emerging market countries.

This part of the discussion goes to the core of policies regarding the role of private creditors and the policy on access to the IMF's financial resources. Many will recall the endless debates about "private sector involvement." The authors capture these well, showing the complexity of the issue (such as the seniority of claims) and the unreconciled differences of view about official financing and moral hazard.

One response to these debates was a move toward enforcement of the access limits to IMF resources—a policy met, to a large extent, in the breach, as demonstrated in Turkey, Argentina, and Brazil. The authors call for a better strategy, one that would elaborate more clearly a role for possibly large IMF financing, even in cases of coercive restructurings. As they put it: "The biggest problem with the current framework is not the gap between what is said and what is done or that the posited goal of limits is unrealistic even as a long-term policy objective. Rather, it is that the current policy framework has precluded serious discussion of the best use of the IMF's ability to provide substantial emergency financing to a range of emerging economies. Claiming that substantial liquidity will not be provided in the future allows the custodians of the global financial order to avoid defining the circumstances when such liquidity provision is the

right policy—and when it is the wrong policy."

Integral to this issue is how to secure a reasonably orderly debt workout when needed. The authors present a comprehensive review of the proposals to create a sovereign debt restructuring mechanism, to encourage more widespread use of collective action clauses in sovereign bonds, and to develop a code of conduct for borrowers and their investors. They conclude that while contractual or statutory change could help address the problem of holdouts and threats of litigation, the changes under way are "... not well suited to addressing the host of other difficulties facing a sovereign that needs to restructure its debts." What is more urgently needed, they argue—pointing to Argentina—"... is for the IMF, backed by the G-7, to be willing to do more early on to help a country through its restructuring. The IMF should provide real money and real guidance in a real effort to avoid prolonged default." Other than the real money, recent history unfortunately has run counter to this good advice.

Despite its many insights, the book presents no silver bullet for dealing with future crises. Instead, the authors call for more balance—between the extremes of large financing packages and limited access to official financing, between all financing and all standstill, and between no effort to engage the private sector and coercive debt restructurings. On one level, this is a disappointing conclusion. However, the authors do help us search for that elusive balance by deepening our understanding of the crises and the attempts to deal with them. As valuable as that is, however, uncertainty about how to proceed and sheer ignorance of the facts that will no doubt characterize future crises argue for *great* care in assessing the risks that still remain in dealing with such events.

Jack Boorman

*Advisor to management of the IMF
and former Director of the Policy
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Seeking perfection at the European Central Bank



Tommaso Padoa-Schioppa

The Euro and Its Central Bank Getting United After the Union

MIT Press, Cambridge, Massachusetts, 2004,
264 pp., \$40.00 (cloth).

This exceptionally rich book covers the history of European integration, the genesis of the euro and its central bank, and the functioning of the Eurosystem (the system of central banks comprising the European Central Bank [ECB] and the national central banks of those member states that have adopted the euro). The Eurosystem occupies a central place in the analysis, but not in a narrow sense. The author, a central banker who has been involved in the process of European monetary unification since 1979, insists on the importance of the economic and political environment, which in the case of the Eurosystem comprises 12 distinct national entities and one supranational organization.

Such complexity sets the Eurosystem apart from other central banks—including that of the United States. Even though the U.S. economy is similar in size to that of the euro area, the ECB must contend with the fact that the economies for which it sets monetary policy are still mainly national in scope. To complicate matters further, many of these markets are lagging behind in terms of competitiveness. This applies in particular to the euro area's labor market, which remains divided into 12 distinct political and

social entities. But for TPS (as Padoa-Schioppa's friends call him), it is possible to design a monetary policy that will meet the needs of such a heterogeneous area—in fact, he thinks the ECB has done an almost perfect job to date. He insists much more on a second problem, which is the leitmotiv of his book: a central bank should not just implement monetary policy, it should also be in charge of supervising the financial system, including in particular the payment system. Only then can it be called a “perfect” central bank.

But because the ECB has no responsibility for supervising payment systems (of which a number of national ones survive) it is far from this concept of perfect. The reason for this lies in the incompleteness of European integration. The Eurosystem comprises 12 proud national central banks, whose combined staff dwarfs that of the ECB. While outsiders understandably concentrate their attention on the decisions made by the ECB at its headquarters in

“Because the ECB has no responsibility for supervising payment systems it is far from this concept of perfect.”

Frankfurt, Germany, the majority of decisions are made by the national central bank governors, whose physical and political home lies in national capitals. It is, for instance, their 12 governors—not the ECB—who are in charge of most of the foreign exchange reserves that could be used for intervening in the currency markets.

For those already familiar with the EU and the euro, the most interesting part of the book comes in the final chapter, which describes five main challenges on the road from “infancy to maturity.” However, the analysis left this

reader feeling somewhat disappointed. After noting all the problems associated with the current system, TPS concludes that there is little the ECB can do to change the prevailing state of affairs. This can best be illustrated with reference to two issues: the chronic weak growth in the euro area and the lack of political union. The first is not a problem unique to Europe; Japan during the last decade faced an even more serious growth problem. While it is certainly true that the ECB can do little to influence growth prospects in Europe, the example of Japan also suggests that wrong policies can do considerable damage. The conclusion would have been much more convincing if TPS had shown that the ECB will be able to avoid the Japanese pitfalls.

No analysis of the euro can avoid mentioning the lack of political union. This is the point where the central banker TPS meets the citizen TPS. His description is as usual elegant: Europe is a “polity in the making.” But is it really only a “challenge”? Couldn't the lack of political union also be an opportunity to move toward a more “perfect” central bank? The coexistence of many different polities in Europe has the advantage of making it less likely that policy mistakes or fads will determine economic policy. In a national polity, one party—even sometimes a single person—can make a mistake or become the follower of a fad. TPS defends the eclectic approach used by the Eurosystem with the Hayekian argument that one can never be totally certain what model is the best. But this argument also implies that the dispersion of decision making across many centers, coupled with a strong dose of policy competition, might actually constitute an advantage. The lack of political union might thus in the long run render the euro area economy—and the euro itself—stronger and more stable than many expect today.

Daniel Gros

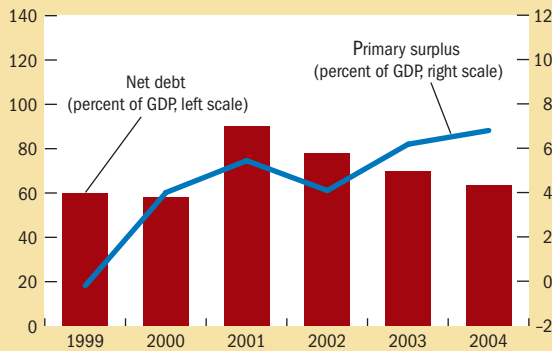
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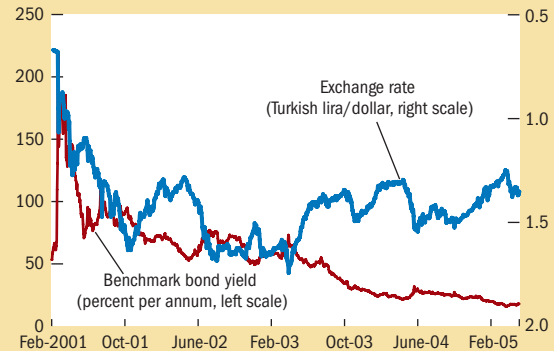


The rapid and powerful recovery in recent years was bolstered by strong fiscal consolidation and rigorous monetary policies. However, the large government debt and widening current account deficit are sources of vulnerability, while reducing unemployment remains a key policy challenge.

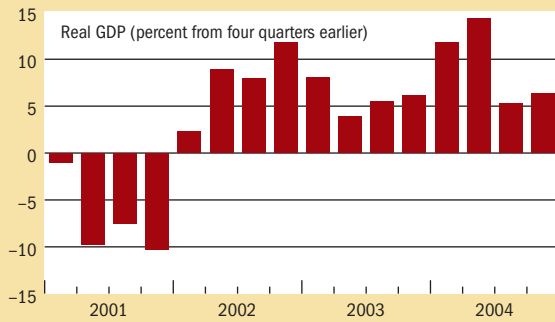
Fiscal discipline has reduced government debt to more manageable levels.



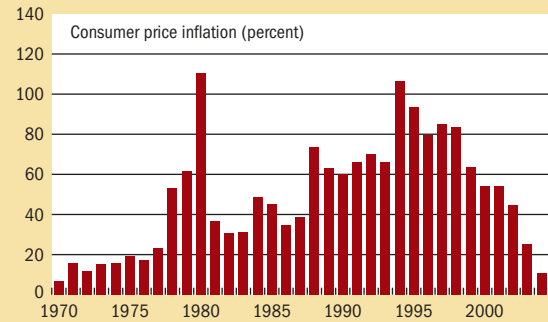
Reduced risk premia have lowered interest rates and helped stabilize the exchange rate.



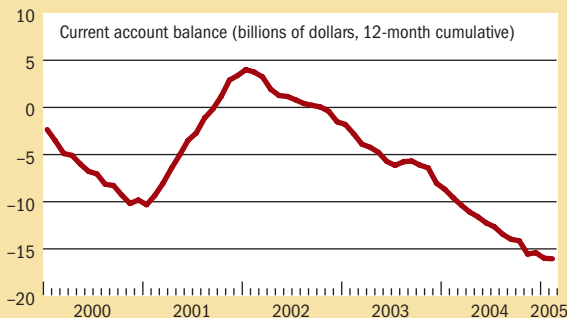
As a result, growth has recovered strongly since the crisis . . .



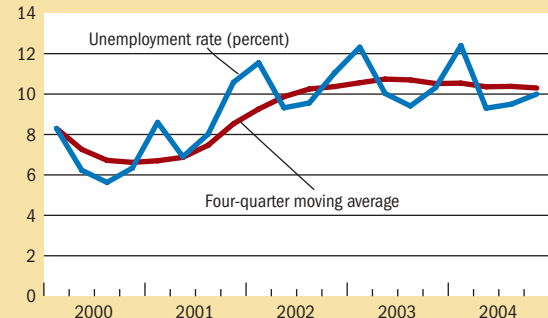
. . . while inflation has fallen to its lowest level in a generation.



However, the strength of the recovery has caused the current account deficit to widen . . .



. . . and rapid population growth will make reducing unemployment a challenge.



Sources: IMF, *World Economic Outlook*; Turkey's State Institute of Statistics; and data from the Turkish authorities.

Debt Relief and Growth

How to craft an optimal debt relief proposal

Raghuram Rajan



Raghuram Rajan is Economic Counsellor and Director of the IMF's Research Department.

IN A NUMBER of developed countries, debt relief for low-income countries has become an important political issue. Rock stars and politicians rightly point to the overwhelming burden borne by poor countries who have to set aside a significant fraction of their national income to repay creditors. Worse still, they argue, much of this debt is “odious,” built up by past corrupt dictators who whisked the money to Swiss bank accounts. Furthermore, evidence that countries with high debt tend to have low growth suggests that debt relief can help poor countries grow.

Several debt relief proposals are on the table, but there is little agreement among donors on which one makes the most sense. The proposals typically have a one-size-fits-all flavor, in part because uniform treatment would avoid politicking by potential recipients. But would poor countries benefit from uniform treatment? This article tries to clarify some of the broad principles that could lead to an optimal debt relief proposal.

Net flows, not debt relief, matter

Consider a poor country that has to repay \$100 million to official creditors such as developed countries or international financial institutions in the current period. Assume it earns \$50 million in foreign exchange in this period and has no other resources. Clearly, it cannot repay the debt fully out of its own resources. Now consider three alternative proposals. First, the creditors do not forgive the debt, but lend \$120 million to the country. Second, creditors forgive the debt down to \$50 million, but lend nothing. Third, creditors forgive the entire debt and lend nothing. Which alternative is best for the country?

Assuming this country has no access to private capital markets, the answer seems obvious: full debt forgiveness, which would be twice as good as half debt forgiveness and surely better than a loan that is not much bigger than the full debt amount. Yet when viewed in terms of net resources available to the country *during the period*, under the first proposal these would amount to \$70 million (the loan of \$120 million plus inflows of \$50 million, less the repayment of \$100 million), under the second they would amount to nothing, while under the third they would amount to \$50 million. Of immediate importance to a resource-starved poor country is the amount of additional resources it gets in the current period (termed “*additionality*”). The best proposal in terms of *additionality* is the first, which offers no debt relief.

The point is that if official creditors take with one hand (collecting debt service) but give more with the other (in the form of a loan), the poor country may have more financing in the short run than with debt forgiveness. And debt forgiveness may actually be problematic if it exhausts donor aid budgets. Of course, without forgiveness, in the long run, the country will have more debt on its books, which may become unsustainable. In the three proposals, the country will end the period owing \$120 million, \$50 million, and nothing, respectively. However, high or unsustainable debt is a problem only if it hurts the country's growth. Let us turn to that.

High debt can be detrimental to a country's growth. It can increase the risk of financial distress or crisis, when foreign creditors rush to cash in their claims, resulting in the failure of banks and firms. However, if offi-

cial creditors hold the bulk of the poor country's debt, it is unlikely they will precipitate a crisis, so the country will not experience a meltdown no matter what its level of debt.

A second reason why a high level of debt might hurt is that it can create a debt overhang problem. For instance, when a country has high debt outstanding, private investors may be reluctant to invest for fear that the debt will eventually be repaid by levying extra taxes on corporations. Similarly, the government may hesitate to invest because the returns will largely go to service debt. Hence, high debt can impair investment and thus growth, and reducing debt may be necessary to jump-start growth. Compelling as these arguments may be in the case of emerging markets, I am not convinced they are important for poor developing countries. Investors in poor countries face other, more significant impediments to investment, such as a discouraging business climate and uneven regulation. A reduction in the level of government debt, without any additional resources or policy change, is unlikely to jumpstart investment.

Some analysts have indeed found a negative correlation between debt and growth in poor countries, but there are other possible explanations. For instance, the causality could run from low growth to high debt, with countries that have weak growth (which may be due to poor policies) running larger deficits, and thus borrowing more. If this is the direction of causality, then debt forgiveness will not spur more growth, and I have yet to see compelling evidence against this possibility. This means that for poor countries borrowing primarily from official creditors, the extent of debt forgiveness matters only in that it increases net resources. Sometimes more additionality—at least in the short term—can be obtained with no debt relief, especially if forgiveness impairs donor aid budgets. And the “unsustainable” outstanding debt can eventually be dealt with through some mix of repayment and forgiveness (when donors have more budget room).

A possible role for debt relief

This is not to say debt relief never makes sense. Debt relief could effectively provide predictable additional resources directly to the budget (via the repayments that no longer have to be made) and could offer a way to force coordination on conditionality among donors. Equally important, debt relief could allow a poor country to obtain access to loans from private foreign investors. Private investors may be unwilling to lend to a highly indebted country for fear that the country will be unable to repay, but if official debt is completely forgiven, they will jump in to lend, because even the worst debtor can be trusted to service small amounts of debt. Thus, official creditors may be able to expand a country's access to private resources through debt forgiveness.

Would such additional resources from the private sector be beneficial? That depends on how much official debt is left on the books, on the nature of the recipient government, and on whether projects have a commercial or social orientation. Clearly, if most of the official debt is forgiven, the private sector has little need to be careful in its lending.

Moreover, if the poor country's government is irresponsible it can build up debt again by spending on worthless projects. As a result, the citizens of the recipient country will not benefit from this renewed debt buildup. In addition, donor countries will likely suffer from “forgiveness fatigue” the next time around. By contrast, moderate debt forgiveness can lead to higher-quality investment as the private sector will have to evaluate the profitability of projects carefully, which in turn can help improve the quality of commercial projects. Of course, if projects produce a social return but no commercial one, the private sector will likely not provide any funds, and official aid will be necessary.

Different situations, different approaches

Let us then summarize where logic leads us. If a poor country has no access to private markets, and the investment climate is bleak, financial distress or debt overhang are unlikely to result from high debt. A focus on debt forgiveness—as opposed to the net incremental resources available in the short run (that is, additionality)—is misplaced. Debt forgiveness makes sense if it generates more resources from the private sector, but the country authorities must have the incentive to use resources well and the private sector to lend responsibly. Interestingly, this means that depending on the country's situation, the status quo, as well as any one of the three proposals I outlined, could be the best approach for the country.

If the country's government is thoroughly corrupt, then the status quo—no forgiveness and no additional aid—is best, for it gives the government no official resources to misuse and limits its ability to raise private sector funds. Aid in this case should be distributed directly to nongovernmental organizations. If the country has a reasonably committed government, look at the country's primary need. When social sector projects top the list, then what matters is the extent of official sector net funding. Here, the first alternative—debt is not forgiven but official creditors lend more—is best. But if most projects are commercially viable, the second alternative—some relief but leaving enough outstanding official debt that foreign private investors lend responsibly—may be optimal. Finally, substantial debt forgiveness is prudent if the risk of financial distress really is a serious problem—an unlikely eventuality. But there must be an assurance that the country does not borrow up again from private creditors and game the system to get further debt relief. Donor imposed limits on borrowing may be needed.

Political momentum in the developed world is building for offering some form of debt relief, and while no developing country situation will fit neatly into these categories, debt relief proposals can be better crafted. One-size-fits-all proposals, while politically more convenient, are unlikely to benefit recipient countries as much as proposals that tie debt relief and additional aid to a country's specific situation. Of course, the more transparent the proposals and the more quickly they can be implemented, the better off the recipients will be. ■

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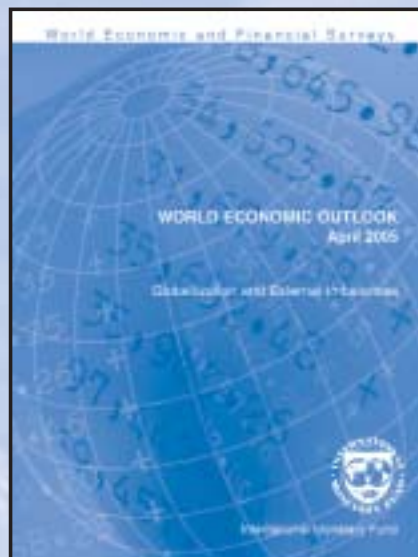
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