The Postal Sector in Developing and Transition Countries

Contributions to a Reform Agenda

Edited by Pierre Guislain

September 2004

The World Bank Group
Global Information and Communication Technologies Department, Policy Division

The Postal Sector in Developing and Transition Countries

Contributions to a Reform Agenda

Edited by Pierre Guislain

September 2004

The World Bank Group

Global Information and Communication Technologies Department, Policy Division

Acknowledgements

This report was prepared by a team including Boutheina Guermazi, Pierre Guislain, Juan Ianni, Charles Kenny, Graeme Lee, and Isabelle Segni. Valuable contributions and comments were received from our reviewers and colleagues in the preparation of this document. Thanks go to Anat Lewin, Gareth Locksley, Paul Noumba Um, Christine Zhen-Wei Qiang, Andrea Ruiz-Esperza, Peter Smith, and Svetoslav Tintchev (World Bank), as well as Alex Dieke (WIK), Bob Cohen (US Postal Rates Commission), and the staff at Frontier Economics. Special recognition to Mark Andrew Wahl for the cover art and interior layout.

Disclaimer

To request additional copies of this report please contact the Global ICT Department, World Bank, 2121 Pennsylvania Ave., NW, Washington, D.C. 20433, USA; email: gict@worldbank.org.

Table of Contents

From the Editor

The World Bank Group has been involved in postal sector reform for over a decade. At present, we support reform in about 25 countries in all regions of the world, with special emphasis on Africa and Latin America. During this decade, the sector itself has changed significantly. The erstwhile paradigm of public sector monopoly justified by the need to deliver and finance specific universal service obligations is crumbling under the dual forces of competition (from other providers of postal services as well as substitute services such as electronic communications) and fiscal restraint.

The postal sector has started a transition process witnessed before in telecommunications and other network industries, from state monopoly to private-sector-led competition. We are only in the early stages of this process and no clear models or consensus have yet emerged as to the best route to follow, in particular in developing and transition countries. While sector reform in telecommunications started over 20 years ago and is still in process, time is running out for the postal sector and reforms will need to be implemented at a faster pace if the sector is to be saved from irrelevance.

This compilation was prepared as a contribution to the Universal Postal Union's 23rd Congress (Bucharest, September-October 2004) and its World Postal Strategy Forum. It includes several articles addressing key issues postal policymakers, regulators and operators are facing today. Each chapter looks at the reform process from a different angle, and the views of the various authors do not always coincide.

Several challenges exist to rigorous research and policy analysis on the postal sector. These include the confusion surrounding the use and scope of the terms postal sector or services, as well as the paucity of data and benchmarks on sector development. While information on the performance of postal incumbents or operators is already limited and uneven, information on other sectoral actors is quasi non-existent in any standardized or consolidated format. This is an area where the UPU and its membership could provide an increased and much needed contribution.

We hope that this compilation will provide a useful contribution to postal sector reform in developing and transition countries and welcome comments and suggestions.

Pierre Guislain
Manager, Policy Division
Global Information and Communication Technologies Department
The World Bank Group

Chapter 1
Introduction

The scope of the postal sector broadly covers pick-up, transport and delivery of letters and parcels, post office counter services related to letter and parcel delivery, and other related services such as mailbox rental (see Box 1). At the same time, post offices (the incumbent operator that provides postal sector services, usually under legal monopoly) often offer a range of services outside of the postal sector—pensions payments, telephone or Internet access, financial services, and retail services for example.

Postal services have existed for over two thousand years and have historically been important to the development of nations. The Roman postal service, the *cursus publicus,* used a network of messengers carrying mail up to 80 kilometers per day; illegal use of the postal system was punishable by death. The modern postal service goes back to 1840 when the stamp was introduced in Great Britain. *The Postal Sector in Developing and Transition Countries* reports on several empirical studies that posit a link between postal sector development and broader development progress.

At the same time, it is clear from the evidence presented in this compilation that in many developing countries the postal sector is far from healthy. The sector, and in particular the incumbent post office, is characterized by low volumes, poor quality of service, and weak financial performance. In the majority of developing countries both the postal sector and the post office urgently require reform—from the level of policy, through regulation, and to corporate restructuring.

The papers in this collection suggest the extent of the policy, regulatory and corporate reform agenda in improving the performance of the postal sector in developing countries, as well as some approaches to such reform. At the same time, the papers suggest that the future of the post office in developing countries as a viable business, rests in part on the provision of a range of services that extend far beyond the postal sector.

Box 1. Defining the Postal Sector

Webster's provides an interesting word history for post: "The word *post*, meaning "mail", is ultimately derived from Latin *ponere*, "to place, put in position." This meaning of the word post was a result of the method of delivering mail. In the 16th century, horsemen were stationed at designated places along certain roads to ride in relays, with royal dispatches and other papers. These couriers were called "posts." As the system of mail delivery expanded during the next two centuries, *post* was applied to a delivery of mail and then to the organization responsible for the entire system of delivering mail." "In Middle English times the word *mail* meant simply "bag," especially one used by a traveler for provisions. Such bags were used to carry letters, and the word *mail* eventually came to designate the contents rather than the container."

The United Nations International Standard Industrial Classification, Rev. 3.1 (ISIC), breaks the "post and courier activities" sector (group 641) down into "national post activities" and "courier activities other than national post activities." National post activities includes "pick-up, transport and delivery (domestic or international) of mail and parcels; collection of mail and parcels from public letter-boxes or from post offices; distribution and delivery of mail and parcels; mailbox rental, *poste restant*e, etc.; mail sorting; and sale of postage stamps. This class excludes postal giro and postal savings activities, and other financial activities carried out in combination with postal activities." Courier activities other than national post activities includes "pickup, transport and delivery of letters and mail-type parcels and packages by firms other than national post. This class excludes similar activities carried out by the national postal authority." The distinction between postal and courier activities is highly interesting as it is based more on the provider of the service than the activity itself, which is unusual for an ISIC classification.

There is a somewhat indistinct border between the postal and logistics sectors, with the postal sector tending towards ongoing collection and delivery networks providing services covering comparatively small items to a wide population base while the logistics sector is characterized by point-to-point deliveries of bigger items to and from a comparatively small base of large customers. The definition of logistics provided by the WTO is as follows: "Logistics deal with the supply chain process that plans, implements, and controls the efficient and effective point-to-point flow and storage of goods, services, and related information, throughout the production, distribution and delivery stages, from the initial suppliers of inputs to final customers of products."

What do the papers suggest about the nature of the postal sector and the incumbent postal operator in developing countries?

- Postal volumes in poorer countries are low. *Questioning the Monopoly* suggests that, on average, countries with GDPs per capita below $1,000 see fewer than one letter per capita, per year delivered, compared to about 100 letters per capita, per year in countries with GDPs per capita over $5,000.
- The quality of service provided by the incumbent operator is often poor. Trust in the postal sector is low and legal universal service obligations (requiring letter delivery to all citizens at a given quality) are far from being met by the incumbent (*Postal Policy and Regulatory Reform* and *Questioning the Monopoly*).

- The efficiency of incumbent operators is weak. *Questioning the Monopoly* suggests that developing countries deliver perhaps one-tenth or fewer letters per employee than developed countries.
- While most postal sectors have a significant *de jure* monopoly in place covering letter delivery (frequently up to 1 kg), *de facto* the position is one of competition. *Postal Policy and Regulatory Reform* suggests that the low quality of incumbent service has driven many businesses to provide their own postal services to deliver bills, for example.
- The financial situation of the incumbent operator is dire. *Postal Policy and Regulatory Reform* suggests cumulated losses of incumbents can run as high as 2 percent of GDP, and that three-quarters of African public postal operators report a negative net financial position.

These linked problems suggest the urgent need for reform, and the conclusions drawn by the papers might be usefully divided into those that suggest a policy and regulatory reform agenda for the postal sector, those that look towards the restructuring of the post office to better provide postal services, and those that discuss an expansion of the post office into new sectors or activities.

The papers are all agreed that the broad approach to policy and regulatory reform should involve greater competition and a reduction of the monopoly as well as improved regulation and a redefinition of the universal service obligation. Reform to allow *de jure* competition has an impact even though (as we have seen) *de facto* competition is frequently widespread. *Postal Policy and Regulatory Reform* notes that the Chinese express mail segment might triple in value under an improved regulatory environment that allowed for more open competition. The discussion of Tanzania in the *Case Studies* suggests that increased competition can be introduced in tandem with operator reform to strengthen overall sector performance. It should be noted that the papers take different positions on the speed of reform towards competition. *Questioning the Monopoly* suggests an immediate opening to full competition, while *Postal Policy and Regulatory Reform* suggests a more gradual approach modeled on the European Union's experience.

Along with competition comes an increased need for regulatory instruments to ensure that competition is fair. *Postal Policy and Regulatory Reform* discusses the General Agreement on Trade in Services' Reference Paper on regulation as a useful set of guidelines for the design of a regulatory framework in the postal sector.

As part of policy and regulatory reform, it is also important that the universal service obligation is revisited. The demand for postal sector services is highly correlated with income. *What Drives Postal Performance* suggests that about 73 percent of the variation in letters per capita across countries can be predicted by variations in GDP per capita. *Questioning the Monopoly* notes that, even in the best of circumstances, demand for postal sector services especially in the rural and remote areas of developing countries will remain low. The paper suggests that given the limited demand for universal postal service, along with limited financial capacity to support its provision, it might be abandoned in developing countries, to be replaced by a government commitment to provide a range of services in greater demand by poor people. At the least, as suggested in *Postal Policy and Regulatory Reform,* the level of service demanded of the incumbent should be adjusted to be financially feasible.

Regarding incumbent reform, the inefficiencies in most incumbent post offices suggest that there is no necessary trade-off between reducing incumbent losses and delivering improved services. Both the *Case Studies* and the cross-country analysis carried out in *What Drives Postal Performance* suggest that reformed post offices can deliver more post with greater efficiency and reliability all while reducing the need for financial transfers. Reform techniques discussed include management and performance contracts as well as franchising retail outlets. Experience suggests that capacity building is a key success factor in restructuring the incumbent, together with improved accountability, and governance mechanisms.

Reinventing the Post Office and *Questioning the Monopoly* discuss the potential for the post office to provide more and different services. Given a limited demand for letter services in poorer developing countries, but a significant and geographically widespread demand for a range of services from other sectors including retail, financial and government services, the future of the post office may rest in provision of those other services. A global network of 700,000 post offices suggests considerable reach for their delivery, argues *Reinventing the Post Office*.

Whatever this potential role, expanding the range of services delivered by post offices clearly belongs at the end of a sectoral and corporate reform agenda which sees the emergence of a competitive sector and an efficient incumbent. Furthermore, if the service delivery involves an explicit or implicit government subsidy to extend access, *Questioning the Monopoly* argues that a careful economic analysis of the benefits of the service, as well as a transparent and nondiscriminatory award of the subsidy would be important components of a new universal service agenda.

In sum, the papers suggest that in developing countries there are benefits to be reaped by reform of the postal sector and of the post office. Given the weak state of sectors and incumbents in many countries today, reform will frequently be able to deliver more widespread quality access to a greater range of services in higher demand by poor people in particular, while reducing the drain on government revenues. All of this might deliver considerable improvements in economic performance, income generation, and the quality of life in developing countries.

Pierre Guislain
Graeme Lee

Chapter 2

Reinventing the Post Office

Modern postal services have been provided for well over a century by post office administrations in virtually every country in the world. Today the future of these postal offices is in question in many developing and transition countries.[1] Traditional postal services (mail and parcels) remain their core product, but cannot by themselves cover the costs of post office networks. A more dynamic post office requires a management structure with the freedom and incentives to increase efficiency, client orientation and innovation. Several approaches for increasing the flexibility and dynamism of post office management are described in this paper. Longer term sustainability may involve: in-depth restructuring and corporate reform; a smaller post office-owned network supplemented by private-public partnerships and franchising schemes; diversification of services with post offices serving as a platform of service delivery for private sector partners; and provision of a broader range of government services. Such transformation will also require changes in policy and regulation regarding the scope of the monopoly and of the universal service obligations (USO). These issues are covered at greater length in chapters 4 and 5 of this publication.

The Postal Dilemma

Of the 1.2 billion items posted daily worldwide, the United States Postal Service (USPS) handles almost 50 percent with an average of close to 700 items per capita, per annum. Yet 25 percent of all countries generate less than one item per capita, per annum, and 50 percent of all countries generate less than 10 items. These low volumes prevail even in countries with considerable post office networks, which were developed when mail was the main communication mode and maintained in an attempt to meet USOs.[2] As an example, the Maldives has a post office for every 1,500 people, with each office handling an average of only two mail items per day (compared to France which has a post office for every 3,000 people, with each post office handling on average 5,500 mail items per day). Over 50 percent of all countries average

less than 200 items per post office per day.[3] Post office networks can only be sustained on such low volumes with significant transfers of scarce government resources.

Mail volumes are highly correlated with per capita GDP (see chapter 3) and developing country post offices may thus expect future increases as their economies grow, through this may arrive too late for many of them. Indeed, global trends are not particularly encouraging for developing country post offices, as competition from email and the Internet is cutting down on traditional mail volumes, and competition from couriers and express carriers is putting pressure on their parcels business.

The desire to ensure widespread access to the post office network (as embodied in USOs in many countries), combined with very low demand for the core service provided by that network, is a dilemma facing most of the developing world's post offices. The main options in the struggle to overcome this dilemma are greater efficiency in network and service provision, more commercial approaches and innovative product development, as well as greater use of that network. Reinventing the post office encompasses these various dimensions and requires significant policy and regulatory reform (see chapter 5 on postal policy and regulation). This paper focuses on the post office itself, rather than on the postal sector, and looks at the main business and organizational models that can structure a modern postal enterprise, and at the scope of services and business lines that post offices can offer or deliver.

Is there Political Will to Reform the Post Office?

The Post Office is a large employer in most countries and sometimes the sole presence of the State in remote areas. Politicians, employees, and the public-at-large know reform can lead to a reduction in post office jobs and closure of some post offices. Trade-offs need to be made. Do they want to serve rural areas with limited demand for postal services ? If so, how will this be funded, and are government or politicians willing to allocate scarce budget funds to support this presence? Are politicians willing to forgo the opportunity for patronage, too often provided through postal employment?

Where the will to reform exists, governments must be ready to tackle resistance to postal reform. Postal reform may indeed lead to staff reductions, closure of post offices, and changes in the status of employees. But it should also lead to improved productivity, performance, customer and employee satisfaction, and in the longer term new jobs. Post office closures can be mitigated through franchising post office services in rural areas leading to better access to customers. Staff reductions can be managed in a gradual way, starting with early retirements and voluntary separation packages, for example. Staff may for instance be encouraged to leave the post office ranks to establish franchise operations, with initial support from the post office.

Restructuring the Postal Incumbent

Until recently the postal sector was among the few sectors where little attempt was made to attract private sector involvement. It was only towards the end of the 1990s that privatization was initiated in countries such as Argentina. Market liberalization has been undertaken at an even slower pace and many countries still cling to the traditional public sector monopoly model.

Figure 1. Legal structure of incumbent operator

Public Administration	Statutory Corporation	Public Company	Private Company
Post office as a government department, entity or public agency	Post Office organized as a statutory corporation under public law	Post Office organized under company law, typically as a limited liability company	Post Office organized as a company, fully or partially privatized; may be publicly quoted on a stock exchange
Public Law		**Private Law**	
Public Ownership			**Private Ownership**

Globally, postal sector reform and post office corporate reform tend to be in their early stages; the record of reform attempts to date is somewhat mixed and best practices have not yet fully emerged. Nonetheless, reform experience tends to suggest that, in common with other sectors, greater private participation in the postal sector can improve the quality and efficiency of service delivery. Commercialization is a necessary part of this process involving greater customer orientation, introduction of commercial and accounting practices, enhanced professionalism of staff, a focus on profitability, and more generally the development of a business culture.

Today many incumbent post offices in the developing world remain postal administrations, often departments of a ministry that may also include communications, telecommunications or transport. They lack appropriate accounting procedures, operate from a government-defined budget and are usually loss making, although profits and losses are often difficult to determine due to the lack of commercial accounts. Political interference tends to be high with political appointees managing the organizations. There is frequently a lack of management accountability or objectives, over-employment, inefficient operations, and tariffs (at best) cover only operating costs leading to no investment. The network is typically fully owned and operated by the post office, poorly equipped and under capitalized, and retail outlets lack technology. Marketing and customer service are not emphasized leading to poor brand image and falling volumes.

Effective Corporatization and Commercialization

In order to increase efficiency of the postal administrations, corporate reform usually starts with a change in the legal structure moving from public administration to statutory corporation, and subsequently to a publicly or privately owned limited liability company (Figure 1).

While the legal transformation from a government bureaucracy to a company operating on a commercial basis is necessary for successful post office restructuring, it is not sufficient and needs to be accompanied by a strong commercialization effort by introducing commercial objectives and practices into management and operations

Box 1. Correos de Chile

In Chile, postal reform has been ongoing since 1982, when Correos de Chile became a statutory corporation governed by a board of five non-executive directors designated by the government through the board of the Sistema de Empresas Estatales. The Correos board meets twice a month, selects the CEO, establishes the strategic plan and supervises the administration of the enterprise. Employment contracts are governed by the labor code.

Between 1982 and 1989 the postal network and staffing were restructured to improve productivity and to more closely respond to market demand. From 1989, the reform of the postal operator has focused on creating a market and customer driven culture, which has included the forming of commercial alliances with the private sector and significant product and service diversification. In October 2002, over 300 rural postal outlets were franchised to reduce costs and extend service hours. In 2003, Correos de Chile delivered a return on equity of 11 percent after paying 57 percent tax on profits (17 percent general tax and 40 percent tax applicable to state owned enterprises).

and establishing a business culture in the postal enterprise. This may also include greater private sector involvement through outsourcing, subcontracting and franchising activities to private companies.

While reform is seen as a necessity to improve the viability of the postal incumbents, there is no simple universal blueprint. Indeed, one of the most successful postal operators in the world, the United States Postal Service (USPS), remains a public administration but operates in a commercial manner. In the case of USPS, governance reform is not likely to take place in the short term but that does not stop them from outsourcing and sub-contracting key elements of their work to the private sector. Correos de Chile, which was transformed from a public administration to a statutory corporation in 1982, is another example of a postal operator that has applied the principles of commercialization (see Box 1).

Moving from a postal administration to a commercial organization and transforming the post office into a statutory corporation or limited liability company is an essential step in reforming the incumbent. This includes among others, separate budgets and accounts, creation of a board of directors, application of commercial and labor laws, and so on.

A useful tool to monitor the performance of the state owned postal operator is the *performance contract* by which the government and the postal operator negotiate and agree on objectives and the means to reach them (see Box 2). Typically performance contracts deal with: (a) legal and institutional changes; (b) economic regulation such as tariffs, price caps, salary increases, and employment targets; (c) scope of universal service, and subsidies to compensate for their cost; (d) financial commitments to increase capital or provide loan guarantees; and (e) financial and operational performance targets (revenues, cost reductions, productivity, quality of service and customer satisfaction, etc.). They tend to be an excellent tool to track success in efforts to improve public sector performance, but typically lack the incentives needed to make significant improvements or sustain them.

Box 2. Performance Contracts

In Tanzania, reform of the postal operator began in 1994 with the creation of Tanzania Posts Corporation (TPC), Tanzania Communications Commission (the regulator), and a clear definition of responsibilities between government, regulator and operator. TPC operates under a performance contract with incentives and penalties for achieving and failing targets. The reform has resulted in a viable postal service in one of the poorest countries in the world, with increased access and diversification of services. Market liberalization has taken place and new licensed competitors are now operating within Tanzania.

In Morocco, Barid Al-Maghrib (BAM) was established as a state-owned company in 1998, and has since been constantly profitable, funding its own retrenchment plan and investments. A performance contract was signed with the State. BAM has entered a number of partnerships with private sector firms.

See chapter 6 for more details.

Establishing the post office as a limited liability company also gives the government the option of selling shares to private investors, since the company is already established under company law (see section on privatization below).

Private sector participation can also be developed through outsourcing non-core activities, franchising retail outlets and providing third party services through postal outlets. Non-core activities such as staff restaurants and cleaning services can easily be outsourced. Building ownership and maintenance are another example. Postal office buildings can even be sold to another company and leased back (be it in part) to the core business. Even core functions such as transport services can be provided by third parties who can share logistics costs and reduce postal fleet costs. In a number of countries, franchising has led to a significant increase in access points in rural areas. Provision of non-postal services on behalf of other companies is a useful way of generating additional income and expanding the scope of the postal retail service, as further discussed below in the section on diversification.

Management Contracts and Concessions

A number of governments have opted for a management contract to rapidly (and drastically) improve the operations and the financial performance of the postal incumbent. Trinidad and Tobago and Guatemala offer good examples of such a scheme (Box 3).

Although management contracts do not involve as strong incentives than would be the case with private ownership and investment, they can be a good way to achieve a quick transformation of the postal operator through the introduction of experienced and focused management. The two management contract examples shown in Box 3 were very different in concept but resulted in similar transformations. The key to the success in both was the incentives given to the management contractors. In the case of Trinidad and Tobago, the contractor was paid for performance in five key areas, whilst in Guatemala the contractor received payment for every universal service letter posted, a clear incentive to increase mail volumes.

Box 3. Management Contracts

Trinidad and Tobago outsourced the management of TT Post to help transform the company into a commercially focused business which the government could later privatize. In a two-phase reform process the initial focus was on the rehabilitation of the incumbent postal operator through a delegated management arrangement (DMA), a five-year management contract. Payment of the fees of the DMA was related to the achievement of five key performance targets in the areas of: customer satisfaction, universal delivery, quality of service, total revenue, and net income. Four of the five targets have been met with substantial increases in volumes, revenues, and delivery, significant improvements in customer satisfaction and quality, but TT Post has not yet achieved a positive net income. See "*Case Studies*" for more on Trinidad and Tobago's reform.

In Guatemala a management contract was awarded in 1998 to take over the management of the postal service. The contractor had an obligation to provide a basic service for letters weighing up to 20 grams. In return the contractor received a government subsidy per item, and had exclusive rights to the postal network which was used as a platform to provide other services. The management contract resulted in increased volumes, improved quality and efficiency, and a reduction in subsidies paid by government. The success of the management contract led to the signing of a 10-year concession agreement in May 2004. The agreement changes the method of paying for the USO, and a regulatory function is being established to regulate all operators in the market.

Concessions are another approach to introduce private participation by providing a private company with the right to operate the postal enterprise at its own risk for a fixed period. In return the concessionaire commits to investing in the company and to the provision of specified services. The most cited example of concessions in developing countries is Argentina (Box 4).

Despite the recent failure of the Argentine concession, the concept remains an attractive way of introducing private sector participation in the postal sector. The key ingredients to successful concessions are to ensure that the government, the concessionaire and the customers all benefit from the concession agreement. The recent Guatemala concession is a good example. Government pays the concessionaire for the provision of universal service (per item) and in return receives a percentage of all revenues. It also receives a fixed rental payment for postal outlets and buildings and the rights to certain services. Other key ingredients to a concession agreement are clear service targets and access goals.

Privatization

The final step of the reform of a state-owned enterprise may lead to privatization. This generally includes the transfer of ownership from the public to the private sector through the sale of shares. The German and Dutch post offices are among the few examples of *privatized postal operators*.

An initial 29 percent of Deutsche Post shares were sold in November 2000 through an initial public offering, allowing the government to maintain control over the public operator, while introducing a more commercially minded management structure. The diversification, growth and profitability of Deutsche Post since its IPO illustrate the opportunities created by privatization. The German gov-

Box 4. Concession Contract in Argentina

In Argentina, a 30-year concession was awarded in 1997 to operate the ailing and loss making postal operator for a concession fee of approximately $100 million per annum. Correo Argentino SA transformed the organization, gave it a new corporate image, increased quality of service, diversified products and services, reduced employee numbers by 40 percent and invested over $350 million in the company. However, the major recession that hit Argentina, the high price of the concession fee, the failure to properly assess the cost of the universal service requirement, the failure to regulate illegal competition, and difficulties in dealing with labor agreements ultimately led to the concession being revoked in November 2003 due to nonpayment of the fee.

ernment still owns about 62% of the company (directly and through KfW), with over 37 percent freely traded on the stock exchange.

TPG, the Dutch postal operator was privatized in a process that began in 1994 when the government sold 30 percent of its share in KPN (the combined post and telecommunication holding company at the time), followed in 1996 by a second tranche of 25 percent. In 1998, post and telecommunications activities were split and TPG demerged from KPN.

In Malaysia, Pos Malaysia was corporatized in 1992. Shares in the company have since been sold with 30 percent owned by government, 15 percent by employees, and the remainder owned by a financial services company. The Ministry of Energy, Telecommunications and Multimedia regulates tariffs and international mail treaties, and the Malaysian Communication Multimedia Commission regulates Pos Malaysia and courier companies. Pos Malaysia has a special license (through 2034) to maintain the role of the universal service provider. The partial privatization has contributed to improved financial and operational effectiveness and the diversification of products and services.

However, privatization may not be a feasible option in many countries for political and operational reasons. The privatization of the British Post Office was prevented in the mid 1990's due to political pressure. Implementing a successful divestiture will generally be more difficult for countries with limited postal markets and a weak incumbent. In developing countries, privatization may not be attractive to the private sector without significant prior restructuring of the business and the environment it operates in. In such cases, postal strategy should aim at optimizing the postal system performance through management reform and efficiency gains.

Sustainability of Restructuring

Concessions, management contracts, and external consultants have been used to introduce management expertise and commercial practices into postal operators. They have led to significant operational improvements in most cases. Whilst some may consider Argentina's reform a failure after the concession was revoked, the government has taken over a much improved operation which is more customer focused and quality managed. The Trinidad and Tobago operator is still not profitable, but 97 percent of the population now receives daily delivery to their homes, compared to 50 percent in 1998. Both are in a far better situation than they were prior to the process of reform, which is an important measure of success. Tanzania and Brazil perhaps best demonstrate the key ingredients of successful reform (Boxes 2 and 5).

Box 5. Postal Reform in Brazil

Correios de Brazil is undergoing a commercialization process based on strengthening the postal operator's capacity and expanding the product offering through a wide range of joint ventures and partnership agreements. Correios de Brazil has a strong social obligation and has successfully introduced a range of financial services reaching a sector of society that previously did not have access to such services. Correios de Brazil is financially viable and has the highest rating of public services in the country with a 98 percent satisfaction measure.

Their reform contains the elements of private sector participation, independent regulation, management accountability, and political commitment all of which are key to a successful reform process.

Financial sustainability requires additional changes. Significant improvements in efficiency often involve a reduction in staff numbers. Labor costs account for as much as 80 percent of total post office costs and yet, in a retail context, staff numbers cannot easily be changed to reflect volumes of transactions. In France, 33 percent of post office outlets operated by La Poste have daily activity levels of less than 2.5 hours resulting in a high cost per transaction. La Poste's solution is to maintain the number of access points through agency agreements with local government offices, and retailers. But the challenge is even greater for an incumbent operator in a developing country, where mail volumes are significantly lower and the scope of services narrower.

In addition, to the extent governments wish to retain universal service obligations in a competitive market, they will need to be carefully costed and rescaled to a financially sustainable level (see chapters 4 and 5). Some post offices may be closed, deliveries may be cut, and/or customers asked to collect their mail from post offices, for example. The case of Tanzania, where a reformulation of the USO has accompanied broader reform, is further discussed in chapter 6.

Diversification

As emphasized above, in most developing and transition countries, postal services cannot by themselves sustain existing post office networks. Volumes tend to be so low, and demand for postal services so limited (in particular among the poor) that the survival of the post office network may depend not only on higher quality services and proactive marketing and postal product development, but also on the ability to provide other services for which there is a higher demand in the communities served. With a network of almost 700,000 postal outlets, post offices are indeed well placed to provide a whole variety of services to those communities. Diversification entails significant risks however, which should not be underestimated. Many post offices worldwide already provide services in multiple markets or segments in which competition exists (see Table 1).

Postal Financial Services

Financial services may account for a significant proportion of postal service revenues, up to 90 percent in the cases of Algeria and Azerbaijan. Post offices play a significant and, often, unrecognized role in access to basic financial services (payments, remittances, savings, giro). Of the 750 million accounts in social financial institutions worldwide, 56 percent are believed to be postal accounts.[4]

Institutional frameworks vary from region to region. Postal financial services are usually man-

Table 1. Segmentation of Services Offered by Post Offices

CORE POSTAL SERVICES		
Service	**Product**	**Competitors**
Letters	Letters, registered mail, telegrams, newspapers	Internal/private distribution, fax, email; often still postal monopoly
Parcels	Parcels and registered parcels to 20Kg	local couriers and express carriers, such as DHL, FedEx, UPS, TNT
Express Mail	Letters and Parcels - Express	same as above
OTHER SERVICES		
Service	**Product**	**Competitors**
Mailroom management	managing and sorting mail for large mailers	facilities companies; direct mail companies
Hybrid mail	email delivered by hand	telecommunications
Electronic	Internet, SMS, Postal Telecenters	ISPs, cyber cafés
Logistics	warehousing, picking and packing, distribution	transportation companies, freight forwarders
Retail	phones, phone cards, stationary items etc	Shops, kiosks, news agents
Rural access	access to people (for delivery of variety of services)	schools, community centers, religious centers
Government	licenses, taxation, pensions, benefits, information	local government, health services, schools
Financial	savings, giro, payments, remittances	banks, Moneygram, Western Union

aged and operated by the state-owned postal operator, often under a post office savings bank agency contract with the ministry of finance (Algeria, Morocco). In some countries, the postal savings are managed by separate (State-owned) banks (as in Indonesia, Kenya, Sri Lanka, and Uganda), through a subsidiary or as a separate entity, under the supervision of the central bank or banking regulator. In many cases, the post office enters into partnerships agreements with financial services firms to provide their services on an agency basis; typical examples include Western Union and Moneygram services for the transfer of money. Third-party agreements can also cover real estate services, as is the case in Malawi where the Post Office rents out space in its main offices to a local bank.

There is a widespread consensus that postal networks could play a much stronger role in providing access to financial services, especially to poor and rural communities with limited access to such services. There is also scope to expand postal financial services from fragmented mono-products to integrated product packages including payment cards, savings, deposits, insurance, and eventually credit.

However it is difficult to translate new ideas into practice. In several countries discussions on the repositioning of the postal bank have taken place for more than 10 years, without conclusion. In other countries steps have been taken to separate the postal bank into a company operating independently from the post office. However, one of the issues that may arise following such separation is the weak performance of the postal network. The lack of control over quality, cost and performance may lead the separated postal bank to look for alternative networks to conduct its business. This illustrates the need for postal operator restructuring to establish a strong retail platform from which postal financial services can be securely provided.

Care should also be given to ensure that postal financial services are well integrated in the country's overall financial sector and that they do not compete unfairly with other financing institutions. Establishing such a level playing field may require subjecting the postal financial services to the oversight of the financial sector regulator.

Postal Telecenters

Several post offices have already tried to develop an Internet access service, with few reports of success. In many cases, pilots have been discontinued due to shortage of electricity, lack of proper maintenance, slow access, limited volume of customers, competition from cyber cafes, and lack of training of the postal staff, among other reasons. Overall, projects are frequently poorly managed, with no market analysis (demand, state of the competition, tariffs), infrastructure constraints (electricity, telephone connectivity), little understanding of the legal and regulatory requirements, lack of a business plan, and not enough planning for capacity building.

A recent study of telecenters in Southern Africa found that under a number of assumptions (five computers, 850 clients per months, VSAT access of 128kbps, 100 percent subsidized training and assistance and VSAT equipment assistance), Internet access in post offices in towns (50,000 to 250,000 inhabitants) might be sustainable. Sustainability in rural areas might also be reached (with, say, three computers, 650 customers, 56kbps access) but in remote areas, additional subsidies would be required.[5]

Prerequisites for Diversification

Diversification requires substantial capacity building, a strategy compatible with the policy, legal and regulatory framework, market analysis, tariff setting, preparation of business plans, and personnel training.

Diversification may focus on *provision of commercially competitive services* or of *government services*. The two approaches are not exclusive, but they do suggest different priorities in terms of broader reform. If the post office is to compete with private sector providers, such competition should occur on a level playing field. Dominant operators (including the post office) should not be able to provide anti-competitive cross-subsidies (hence the importance of open competition and, if necessary, regulation) and should not enjoy customs or tax exemptions, government guarantees, reserved procurement, or other privileges not enjoyed by private competitors. It also requires that post offices are freed from the shackles of bureaucracy, uncompensated universal access requirements, and public sector-specific legal provisions covering areas such as employment or procurement. In other words, diversification into provision of competitive services requires broader liberalization of the postal sector (and development of an effective sector regulator) as a whole to occur in tandem with corporate reform. On a corporate level, it requires transparent cost accounting, adequate incentive schemes, and capacity building.

If the post office diversifies into government service provision on a noncompetitive basis (providing licenses, e-government services, and outreach, for example), the urgency for corporate reform is to ensure that needed services are provided as efficiently and effectively as possible. This is likely to involve considerable cross-government coordination and citizen consultation regarding the services to be provided. Government agencies will need to better articulate how they could use postal networks for better delivery of their services to citizens. Again, this will have to be combined with the implementation of corporate restructuring strategies such as those outlined above.

Whichever diversification option is chosen (commercial or government services) one should bear in mind

that the track record of diversification by state owned enterprises, outside of their core business, has by and large been disappointing in developing and transition countries. Any diversification strategy should be based on a solid assessment of the incumbent's strengths and weaknesses, as well as the opportunities and threats it may face in its core business and in the new business being considered.

Conclusion

Post offices throughout the world were established to facilitate the conveyance of mail. To fulfill the collection and distribution of mail, governments built a network of post offices to provide the entire population access to postal services. Many countries realized the potential of such post offices in the provision of other services, thus, post offices diversified into providing financial and government services. But the core product still remained mail services.

What exactly is the role of post offices in today's world? Governments need to define the purpose of their post office: is it a mail distribution company; is it an access point to government products and services; is it an access point to financial services; and is it a commercial self sustaining business?

How should it be run? If it is operated on a commercial basis, nonprofitable outlets will need to be closed and service levels reduced in areas of low demand. If this is not acceptable to governments, they must define adequate schemes to maintain and finance the desired service levels and implement them in a transparent way. For example, the United Kingdom government pays Royal Mail a subsidy specifically to maintain the rural network of post offices, which would otherwise be closed.

Governments should consider divesting themselves of management control of their post office and put in place commercial practices and management. Social or public service obligations must be clearly determined and their net cost calculated and compensated.

Post offices are still contributing to economic growth in many countries, but in others, antiquated, underfunded networks, and lack of competition limit or reverse that contribution. Governments must reform their post offices to ensure they, once again, become an enabler of economic development for the country as a whole, potentially through leveraging their extensive retail network. As this increasingly involves the provision of services other than traditional postal services, governments will need to ensure that this diversification is carried out in a pro-competitive manner. This means no favored treatment of post offices relative to their competitors, but also freeing post offices from the bureaucratic shackles that constrain them.

Notes

[1] The term "post office" as used in this paper refers to the incumbent postal operator, whether it is a public administration, public enterprise or private company.

[2] The Universal Postal Union (UPU) enjoins its members to support the concept of universal service, which should provide all citizens "quality basic postal services at all points in their territory, at affordable prices".

[3] Even this number is inflated as the real number of items passing through each post office will actually be lower since business and government mail typically accounts for about 80 percent of mail flows and often bypasses retail outlets.

[4] Consultive Group to Assist the Poor. "Occassional Paper." July 2004. p.5.

[5] See "Postal Telecenters – Rural Development through Internet access in the Southern Africa Development Community: the Cases of Malawi, Tanzania and Zambia". World Bank, July 2004.

Charles Kenny

Chapter 3
What Drives Postal Performance? *A Cross-Country Analysis*

Based on data from the Universal Postal Union (UPU) and the World Bank, this paper develops indices of postal performance and efficiency and analyzes the factors behind them. It takes a preliminary first cut at examining the statistical relationship between postal performance (as measured by letters/capita), trust in the postal service, and postal efficiency, and finds a significant link between the three. The results suggest that reforms that improve postal efficiency and trust in the postal network will improve the performance of the postal network. However, our available measures of reform progress are not strong enough to evaluate the scale of this impact. External factors including urbanization and literacy do not appear to contribute significantly to performance. At the same time, it does not appear that more heavily subsidized post offices are delivering better services.[1]

Introduction

In comparative terms, there has been little focus on the relationship between postal performance and economic development. This is especially true of econometric work linking the two, where, compared to a plethora of studies looking at the relationship between telecommunications rollout and economic growth (see Forestier et. al. [2002] for a nonexhaustive list of 15 such studies), we could find none exploring the statistical relationship between postal networks and economic growth.

Nonetheless, there are a number of potential links between postal networks and development. Like other communications infrastructures postal networks allow for the flow of goods, services, and payments between economic agents. An efficient postal network can therefore significantly reduce transaction costs across an economy (particularly for billing and advertising services), forge markets where they did not exist before, and support knowledge transfer between agents that allow

innovation and growth. In developing countries in particular, post offices are one of the most far-reaching information and communication networks, and provide a widespread base for interaction with the formal financial system. By connecting people to both markets for goods and services and the financial systems that underpin them, postal networks can be a potentially powerful tool for poverty reduction.

The theoretical links have been given some empirical backing in historical studies such as Ahmed (1981), who suggests that postal network expansion was significantly linked to the growth of a national economy in India. A number of recent studies have added microeconomic and anecdotal support to the case for a link (Walsh, 2001, 2002, and Ranganathan, 1998).

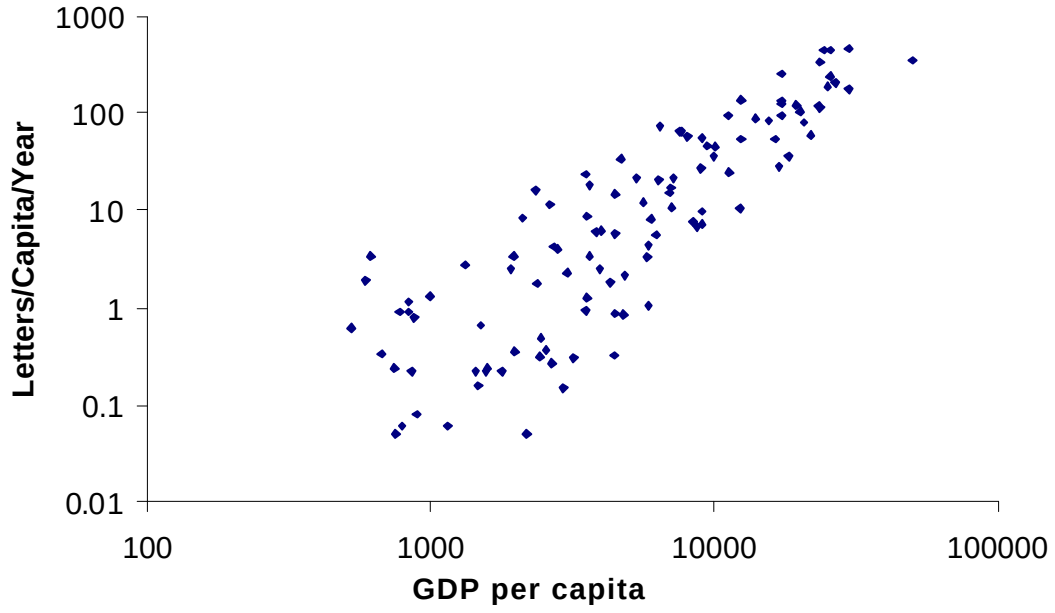
Given that postal networks might well play an important role in the development process, it is important to understand what might help postal operations provide better and more widespread services in developing countries. This paper takes a preliminary first cut at examining the factors behind postal performance. Based on data from the UPU and the World Bank's World Development Indicators, it develops an indicator of postal performance measured as letters per capita delivered compared to the number of deliveries expected given income levels.

The paper then goes on to discuss possible factors behind varying scores on the postal performance indicator. Examining a correlation matrix of variables, it appears that postal efficiency (letters delivered per postal employee and postal expenses per letter) are correlated with improved postal performance. Given the scale economies that characterize the sector, it may be that there is a causal relationship flowing both ways. Reforms that improve postal efficiency (and perhaps more importantly the quality of services) will increase use of the postal network while, conversely, more use of the system itself will allow greater efficiency. A factor linked to efficiency, promoting the number of letters delivered at a given income, is trust in the postal network (defined below). The percentage of offices that are run by nonpostal administration staff appears to have a marginal impact on performance. A second measure of liberalization, as well as measures of the use of postal financial services and external factors including urbanization and literacy, do not appear to be significantly related to performance. The Annex discusses a regression analysis that confirms these findings. The concluding section suggests policy recommendations and avenues for further research.

Postal Networks in Development

There is a close relationship between postal performance and economic development. For telecommunications, the "Jipp curve" linking GDP per capita with telephone lines per capita can predict about 80 percent of the variation in telephone lines per capita across countries at a single time (see Forestier et. al., 2002). A "postal Jipp curve" can be constructed linking letters posted per capita with GDP per capita (data from UPU postal database and World Bank World Development Indicators).[2] The relationship is almost as strong as the original. About 73 percent of the variation in the number of letters per capita can be predicted by GDP per capita (Figure 1). This suggests that there is a significant relationship between economic development and expansion of postal networks.

Figure 1. The Postal Jipp Curve



Developing the Postal Network

If a strong postal network has a relationship with development, it is important to find evidence on what might drive the development of a strong postal network (here defined as one which delivers more mail per capita). Supply and demand factors will both play a role in determining the number of letters sent per capita.

On the demand side, income is clearly an important factor, as already suggested by the "postal Jipp curve." Perhaps literacy levels might also play a role. On the supply side, one might plausibly expect price, extent, efficiency, and quality of service to have an impact—indeed, such relationships have been found in developed country postal services (Nankervis et. al.,1999). It is also possible that a post office network offering a range of ancillary services and/or services aimed at the needs of businesses would attract a larger clientele that might post more letters.

At this point, as we have chosen to use a dataset that covers as many countries as possible (as we shall see), data limitations force the use of proxy or imperfect indicators. Furthermore, we do not have cross-country comparable data on price. We do have various measures of extent (measures of population covered and post offices per square kilometer), efficiency, and quality of services, however.

Efficiency variables include ratio of revenues to expenditures, postal revenues per staff, and letters delivered per employee and post office. Looking at potential determinants of efficiency, the general level of development may allow for economies of scale or more efficient postal institutions. Private competitive involvement has been found to correlate with improved service delivery (including reduced prices) in a number of sectors, and this includes studies of the postal sector in developed markets (Frontier Economics, 2002). Urban postal delivery is more straightforward

than rural delivery, as is common with most networked services. All of these factors may impact overall efficiency.

"Quality" is, at the outset, a comparatively arbitrary term. In previous postal studies it has been measured using indicators such as number of letters delivered on time. It may also encompass the linked concept of reliability—are letters delivered at all? Again, we do not have such data at the cross-country level. Instead, we use a measure of trust in the postal system (survey answers to a question regarding willingness to send an object worth $100 through the posts) as a proxy for quality. This trust measure might plausibly be related to measures of efficiency—bloated public monopolies frequently provide a lower quality of service than efficient ones (World Bank, 1995). Trust, and a broad definition of *"quality"* might also be related to the extent of service provision.

In order to empirically examine our posited relationships, a range of relevant variables were selected from the UPU database as well as information from Kirkman et. al. (2002), and the World Bank's *World Development Indicators* database. These are described in Table 1, with descriptive statistics in Table 2.[3] There is considerable variation across countries in most of the indicators—for example, the number of letters delivered per year per employee varies from 196 to 174,930, receipts as a percentage of post office expenditures varies from 11 percent to over 400 percent, privately operated post offices as a percentage of all offices varies from none to 95

Table 1. Indicators for analysis

Postal index	Index of postal success calculated as (log) actual minus (log) predicted letters/capita from regression of log letters/capita against log GDP/capita (PPP). Letters/Capita from UPU, GDP/Capita from WDI.
GIT Postal trust	Score on GIT index of 'trust on postal services' (survey response to question: 'Do you trust your country's postal system sufficiently to have a friend mail a small package worth $100 to you (1=not at all 7= yes)'). Source Kirkman et. al. (2002)
Illiteracy	Illiteracy rate, adult total (percentage of people ages 15 and above). Source: World Bank, 2002.
Urban population	Urban population (percentage of total). Source: WDI.
Savings and giro	Number of post office savings and giro accounts per 1,000 people. Source: constructed from data in UPU.
Money orders	Number of money orders, domestic service per 1000 people. Source: constructed from data in UPU.
Letters/staff	Letters/staff. Source: constructed from data in UPU.
Receipts/Expenditure	Postal receipts/Postal operating expenditure. Source: constructed from data in UPU.
KM/Office	Average area covered by a permanent post office (km2). Source: UPU.
% of Offices staffed private	Secondary offices staffed by nonadministration as a percentage of total offices. Source: constructed from data in UPU.
Expenses/Letter	Postal operating expenses/letter (SDRs). Source: constructed from data in UPU.
Receipts/Staff	Postal receipts/staff (SDRs). Source: constructed from data in UPU.
Offices/Population	Post offices/population (1,000). Source: constructed from data in UPU.
Staff/Office	Total postal staff/post offices. Source: constructed from data in UPU.
Population unserved	Percentage of the population without postal delivery, 2000. Source: UPU.
GDP/Capita	GDP/Capita, PPP. Source: WDI.

Table 2. Descriptive statistics

	Number of Observations	Average	Standard Deviation	Minimum	Maximum
Postal index	110	0.00	1.26	-3.39	3.22
GIT Postal trust	51	4.36	1.50	1.80	6.70
Illiteracy	87	20.97	20.93	0.20	84.07
Urban population	110	54.30	22.68	9	100
Savings and giro	41	177	286	0.20	1574
Money orders	88	347	1096	0.02	7322
Letters/Staff	105	31,830	38532	196	174930
Receipts/Expenditure	103	1.07	0.50	0.11	4.73
KM/Office	106	1,491	4358	0.80	29182
% of Offices staffed private	106	29	30	0.00	95
Expenses/Letter	103	2.07	13.96	0.001	142
Receipts/Staff	101	13,288	21900	58.84	132579
Offices/Population	106	0.16	0.18	0.00	1.32
Staff/Office	101	7.73	7.60	0.54	57.44
Population Unserved	94	7.74	18.89	0.00	97.00
GDP/Capita	110	8,389	8720	523	50061

Table 3. Regional statistics of selected variables

	GDP/capita (PPP value) ($)	Letters / capita	Expenses / Letter ($)	Trust	Population Served (%)
Asia Pacific	6,106	28.0	0.474	4.38	97
Europe and CIS/ECA	8,030	38.8	0.672	4.70	99.7
LAC	7,017	17.5	0.702	3.03	93
Arab/MNA	4,275	8.3	1.92	4.70	85.7
Sub-Saharan Africa	2,750	9.1	0.537[1]	3.47	76.8
Industrialized countries	25,191	224.0	0.57	6.02	99.5

percent and the average geographic coverage of post offices varies from less than one square kilometer to nearly 30,000 km^2.

Table 3 reports regional average statistics, suggesting considerable variation even at this aggregate level. Letters per capita at this level vary between nine and 224, expenses per letter from $0.47 to $1.92, and the trust score from three to six. Much of this variation would be predicted based purely on income differences between regions, as we have seen. The remainder of this paper discusses if other factors are also at work.

A first stage in the empirical analysis is to look at simple correlations between variables. To do this, we construct a relative measure of postal performance based on the "postal Jipp curve." This is the (log) actual letters per capita posted in a country minus the (log) predicted number of

letters posted in a country based on what would be expected given the country's income. Broadly, a positive number suggests that the country is posting more letters than we would expect based on income, a negative number means people are using the (official) postal system less than expected (for example, the 2000 score for Algeria is 0.99, Morocco 0.87, Trinidad.24, Tanzania 1.82 and for Senegal –0.11).[4]

We can now study a correlation matrix based on this data. The numbers in the matrix (Table 4) suggest the degree to which one indicator varies in step with another. If there is no relationship between changes in one indicator and the other, the score in the matrix would be zero. If an increase or decrease across observations in one indicator is perfectly matched with an increase or decrease in the other indicator, the score in the matrix would be one. If an increase in one indicator is perfectly matched by a decrease in the other (and vice-versa), the score in the matrix would be –1. Strong positive or negative correlation scores (greater than 0.5 or less than –0.5) are highlighted. The next 10 paragraphs discuss the results presented in Table 4.

We can use the postal index score (letters per capita performance allowing for income) for 2000 to see what correlates with "better than expected" postal performance. Looking across the first row of the correlation matrix, it is possible to see how closely our index of postal performance is related to the other indicators in our database. In

Table 4. Correlation matrix

	GIT Postal Trust	Illiteracy	Urban Population	Savings and Giro	Money orders	Letters/staff	Receipts/Expenditure	KM/Office	% Offices Staffed Private	Expenses/Letter	Receipts/Staff	Offices/Population	Staff/Office	Population Unserved	GDP/Capita
Postal index	0.55	0.13	-0.19	0.00	0.17	0.35	-0.01	-0.10	0.18	-0.30	-0.10	0.10	0.13	0.07	0.08
GIT Postal trust		-0.22	0.36	0.51	0.32	0.72	0.34	-0.33	-0.01	-0.24	0.65	0.48	0.46	-0.43	0.81
Illiteracy			-0.60	-0.39	-0.21	-0.28	0.06	0.42	0.02	0.15	-0.33	-0.43	-0.12	0.43	-0.56
Urban population				0.36	0.14	0.43	-0.07	-0.26	0.02	-0.09	0.40	0.21	0.37	-0.41	0.62
Savings and giro					0.10	0.50	0.05	-0.16	-0.22	-0.03	0.83	0.29	0.19	-0.22	0.53
Money orders						0.09	0.05	-0.10	-0.16	-0.04	0.04	0.17	0.20	-0.11	0.24
Letters/Staff							-0.02	-0.12	0.15	-0.10	0.56	0.03	0.46	-0.15	0.66
Receipts/Expenditure								-0.02	-0.01	0.05	0.04	0.11	-0.03	-0.04	-0.02
KM/Office									-0.16	0.60	0.13	-0.25	0.09	0.08	-0.22
% of Offices staffed private										-0.07	-0.01	0.21	-0.31	0.04	-0.02
Expenses/Letter											0.50	-0.10	0.14	-0.02	-0.08
Receipts/Staff												0.03	0.39	-0.19	0.60
Offices/Population													-0.11	-0.27	0.37
Staff/Office														-0.12	0.50
Population unserved															-0.30

short, the postal index appears to be strongly and positively correlated with our measure of trust in the postal system and the number of letters per employee, and strongly negatively correlated with total postal expenditure divided by the number of letters delivered.[5] This suggests that trust in services and efficiency in their delivery are both important to increased postal volumes.

What do these simple correlations suggest about possible explanatory factors driving postal performance? First, it suggests that demand does not appear to be simply correlated with literacy rates. Countries with literacy rates below 80 percent have an average postal performance of 0.24 –higher than those countries with a literacy rate of above 80 percent—at -0.20. Income appears a better determinant of postal demand than literacy rates, then—perhaps in part because in many developing countries many literates do not use postal services, suggested by letters per capita volumes of under one piece per capita per year.

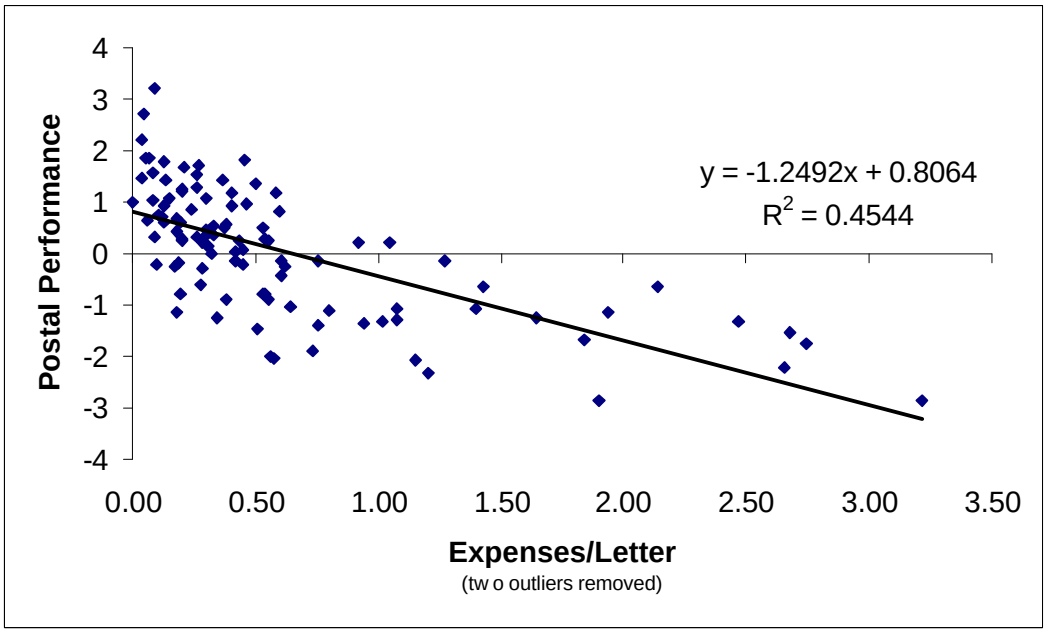
On the supply side, and related to the above, it does not appear that the extent of the network (as measured by the percentage of the population covered or post offices per square kilometer), the level of urbanization or the presence of ancillary services is correlated with increased letter volume per capita at a given level of income. These results may suggest limited demand for a universal letter service in developing countries, given that countries where more people can (theoretically) post and receive letters do not see larger letter volumes as a result. This is an idea explored further in Kenny (2004).[6]

The lack of a relationship between postal receipts divided by postal expenditure and performance may further suggest that government subsidies justified on the grounds of extending use of the postal network are not working. If subsidies were extending access, countries where revenues were considerably smaller than expenditure (and so countries where subsidies were large) would see a larger number of letters per capita, a lower ratio of square kilometers to offices, a higher number of offices per capita, or a lower unserved population. None of these results hold.[7] Subsidies are apparently not extending access to or use of the postal network (this could also suggest that demand for letters sent in developing countries is fairly independent of price, perhaps further emphasizing the importance of efficiency and reliability in increasing volumes).

There does not appear to be a particularly strong link between the level of postal financial services used by the population and basic postal performance. Given that the postal financial network might be considered a good in its own right, this suggests that a separate analysis of what leads to a strong network may be worth undertaking. Some suggestive correlations do appear, however. Savings and giro accounts per capita is strongly correlated with receipts per employee (unlike the postal index itself), suggesting that the postal financial network may play an important role in creating income for the postal network and reflecting, perhaps, the greater importance to many post office customers of financial services provided through the postal network than letter services.

At the same time, the results strongly suggest that efficiency improvements may be an important element of the story. Both postal expenses per letter and letters delivered per postal staff member are strongly correlated with postal performance—lower costs and fewer staff per letter are correlated with more letters sent at a given income (see Figure 2). As noted earlier, it is probable that causation runs in both directions. High fixed-costs mean that factors that increase vol-

Figure 2. Postal performance by expenses per letter

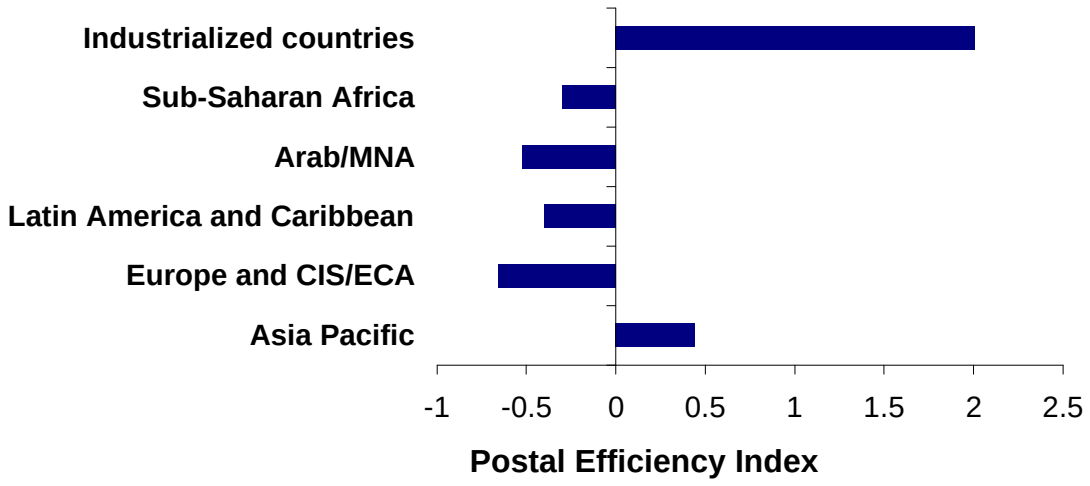


umes will improve efficiency, while improved efficiency and quality will also increase the demand for mail services. Trust in the postal network is also a significant correlate with postal performance—countries with low trust in the postal system (a score of below 4 out of 7) average postal performance of -0.59, compared to countries with high trust (above 4) that average 0.51.

Efficiency related indicators include letters delivered per staff, ratio of revenues to expenditures and postal revenues per staff. Since these indicators are correlated with each other, we can construct an index for efficiency as the principal component of these four indicators. The regional averages of the index are illustrated in Figure 3. Industrialized countries lead at an index of 2.0. Asia Pacific region's index of 0.44[8] is a step ahead other developing countries. East European and Central Asia scores the last among all regions.[9] This suggests the unsurprising result that efficiency is related in part to GDP per capita, but also suggests other factors are at work—sub-Saharan Africa does better on this index than would be expected given its income, Eastern Europe and Central Asia, as well as the Middle East and North Africa do worse than would be expected.

Like efficiency, postal trust is correlated with income, suggesting that it may be difficult for developing countries to greatly increase trust in the postal network, perhaps through institutional reform. For those countries that do manage to improve trust, however, the payoff may be high. One possible avenue suggested by the strong positive correlation between letters/staff and trust, is to reduce over-staffing in the postal network. It is worth noting that it appears efficiency and high quality of service are *positively* related. Countries with low postal efficiency in the postal sys-

Figure 3. Postal efficiency index by region



tem (an index of below 0) average a trust score of 3.62, compared to countries with high efficiency index (above 0) which average 4.97. In other words, at least at first examination, there does not appear to be a necessary efficiency-quality trade-off—instead, it is possible that greater efficiency can drive improvements in both variables.[10]

Turning to factors that might lie behind the efficiency result, expenses per letter seem to be uncorrelated with income per capita, despite the theoretical argument that would suggest a strong relationship based on scale economies in delivery (driven by factors such as the fixed costs of delivery). The lack of such a relationship may reflect the fact that developing country post offices provide fewer ancillary services, while having lower labor costs and a far lower level of quality of service in developing countries. Nonetheless, it also reflects the possibility of increasing efficiency in poor countries.

Regarding the impact of reform on efficiency and letters per capita, countries where no secondary post office is staffed by people outside the postal administration score an average of -0.43 on the performance index, while those with at least one such office score an average of 0.17. Having said that, the link appears statistically weak.

There are at least two possible reasons for these results:

- There are significant data weaknesses. The measure of "percentage of offices that are privately staffed" is also only a crude and partial indicator of sector reform. Furthermore, countries that have a liberalized market are likely to be the ones where statistics on mail volumes provided to the UPU are weakest, with a likely bias towards underreporting.[11]
- It may be that the indicator does not capture what is important as part of a successful reform agenda (*"Postal Policy and Regulatory Reform in Developing Countries"*). The case studies in Walsh (2001) covering Argentina, Tanzania, and Trinidad

and Tobago suggest that privatization without successful regulation (Argentina) can produce worse results than corporatization and various types of management contract (Tanzania and Trinidad and Tobago). An important factor behind increasing the letter flow of the incumbent captured in UPU statistics may be better management at the top of the incumbent itself—ill captured by our measure of reform.

The Annex contains results of a series of regression analyses that confirm the above results—efficiency and quality appear to be important determinants of performance, but the link between franchised offices and efficiency appears weak.

Conclusion

The results in this paper, it should be repeated, are very preliminary. They measure postal performance in a narrow way, excluding, for example, the important role that post offices play in the delivery of government and financial services. Further, they relate to single-period correlations, and such correlations can say nothing about causation. The most the results can suggest is that the data does not disprove a given theory. Nonetheless, they are suggestive. It appears that it is possible for developing countries to improve the performance of their postal sectors through efficiency reforms, especially those that increase trust that letters will be delivered intact and on time. Such reforms may be able to stem postal sector losses while at the same time delivering positive improvements in the quality of service. The cross-country data on reform is not fine-grained enough, to allow for a serious statistical analysis of what reforms work and how to improve efficiency. The tentative conclusions that can be drawn from the evidence we have (to date) cannot move far beyond the level that it may not be as simple as franchising offices.

However, we know that successful reform programs *can* improve the indicators that make up our efficiency index. Both Trinidad and Tobago and Tanzania's reform programs saw letters delivered per postal employee approximately double (estimated from Walsh, 2001). Careful case study analysis of reform, of the type summarized in Walsh (2001) should drive policy recommendations in this area.

Given the preliminary nature of the results presented here, there is clearly scope for considerably more research in this area. A first step for such research would involve the collection of more data (where the UPU and its members should play a lead role). In particular, it would be useful to have data covering mail volumes in the whole sector (not just volumes delivered by the incumbent), prices for mail delivery services, and details on the status of sector reform in a wide cross-section of countries. A second step would be a more advanced analysis of the data based on regression analysis of models of postal demand. Better data and more advanced analysis might allow for the evaluation of the impact of various reform models on volumes, quality of service and price.

Annex: Regression Analysis of Efficiency, Trust, and Improving Performance

In order to test the determinants of the postal efficiency and its impact on the reliability and performance of postal services, we estimate a simple linear regression model on the efficiency index and a two-stage least square model for the latter, as summarized in the following equations:

Regressions with Efficiency as Dependent Variable

Variable	**Coefficient**	**Student's T**
Log GDP/capita	0.851	3.79
Urban population (%)	0.003	0.35
Private offices	-0.003	-0.66
Literacy	0.016	1.84
Constant	-7.575	-4.43

Regression with Trust as the Dependent Variable

Variable	**Coefficient**	**Student's T**
Efficiency Index	0.485	5.11
Percent of population served	0.045	2.46
Constant	-0.042	-0.02

Regression with Log Letters/Capita as the Dependent Variable

Variable	**Coefficient**	**Student's T**
Log GDP/Capita	1.956	6.62
Efficiency Index	0.340	1.90
Predicted trust	0.911	0.48
Literacy	-0.001	-0.09
Urban population (% of total)	-0.027	-2.64
Constant	-13.418	-5.51

As for factors that might lie behind the efficiency index, regression analysis of Equation (1) suggests that income levels play a dominant role. Literacy (perhaps because of its link to the potential postal market and the capacity of the postal staff), also has a statistically significant impact although the magnitude is rather small. Echoing the correlation results above, however, the results suggest no link between policy reform as measured by the percentage of offices that are privately staffed[12] and postal efficiency.

As would be expected, the results from Equation (2) suggest that trust in the postal network is strongly correlated with postal efficiency. A 10 percent efficiency improvement is associated with an eight percent increase in the trust index.

The analysis of the correlates with letters per capita as the dependent variable in Equation (6) suggests that efficiency is strongly related to this measure of postal performance. The results again suggest that there is insignificant correlation between possible environmental determinants of performance (urbanization and literacy) and the postal performance measure. Performance on the postal index does not appear to be determined by these factors that are difficult for developing countries to change over the short-term, then. This suggests the potential for reform efforts to have an impact on performance.

Box 1. Formulas

(1) $$EFFINDEX_i = a_1 + a_2(GDP_i) + a_3(URBPOP_i) + a_4(PRIVAT_i) + a_4(LITERACY_i)$$

(2) $$TRUST_i = b_1 + b_2(EFFINDEX_i) + b_3(POPSERVE_i)$$

(3) $$LETCAP_i = g_1 + g_2(GDP_i) + g_3(EFFINDEX) + g_4(TRUST_{predicted}) + g_5(LITERACY_i) + g_6(URBANPOP)$$

(4) $$TRUST_{predicted} = \hat{b}_1 + \hat{b}_2(EFFINDEX_i) + \hat{b}_3(POPSERVE_i)$$

Notes

[1] Senior Economist, the World Bank. Particular thanks go to Christine Qiang for both comments and for providing the regression analysis presented in the annex.

[2] Letters/capita is clearly not a directly equivalent measure of telephones per capita—it is more of a measure of use (equivalent, perhaps, to minutes of call time/capita) than of infrastructure rollout. Another measure might be post offices/capita. However, as post offices are public, whereas the great majority of telephones are private, this is not a good comparator, either. For example, Hong Kong could probably get away with very few really large post offices to serve the entire city, obviously it couldn't do the same with telephones. The most direct equivalent may be home letterboxes per capita, but that does not appear to be available in the UPU database.

[3] It should be pointed out that much of the data is subject to significant error. For example, the UPU collects its data from the incumbent postal operator and it has limited capacity to check the reliability of this information. Further, while such operators usually have an official monopoly over at least parts of the postal delivery system, especially in developing countries with weak operators, much mail is delivered by unofficial operators—which is not captured in the statistics. The trust index could reflect trust in express or highly guaranteed mail services rather than the country's core mail service.

[4] As a first, very preliminary, step in overcoming the lack of evidence regarding postal performance and economic growth, using 1980 data to construct the index, and data on economic growth rates over the 1980-2000 period, we can see if countries that have a positive score on the postal index see faster subsequent growth. Looking at the results suggests that there might be such a relationship. Overall, 72 percent of the 79 countries suggest the correct relationship (positive to positive or negative to negative) between the postal index score and growth outcome. Clearly, it is likely that a positive score on the postal index correlates with a number of other factors (perhaps general institutional quality, for example) which are also factors behind growth. However, the results are suggestive of the role that the postal system may have to play in the economy and development.

[5] It is important to remember that this is a measure of postal performance *given income*—if the measure used was letter per capita, it would be strongly cor-

related with any indicator that was also related to income per capita (including, for example, urbanization). It should also be noted that letter/capita and expenditures/letter are all arithmetically linked by the inclusion of letter volume.

[6] It is worth noting that countries with urbanization rates below 50 percent have an average postal performance of 0.29—higher than those countries with an urbanization rate of above 50 percent—at -0.20. This may be an artifact of a nonlinear relationship between income and letters per capita. Alternatively, it may reflect a problem with the data, related to the comparative ease of competitive service delivery in urban settings. Developing countries with large urban populations are seeing a greater level of legal or illegal competition to the incumbent, and this competition is delivering letters that are not reported in the UPU statistics.

[7] The weak correlation between urbanization and receipts/expenditure suggests that it is not the case that subsidies are going to deliver the same level of service in countries where delivery is more complex.

[8] This is probably because Hong Kong is grouped in EAP, not in the industrialized countries.

[9] This efficiency index has a sample mean normalized to 0, sample standard deviation of 1.429. It ranges from a minimum of –1.031 (Tajikistan) to a maximum of 8.029 (Hong Kong, China).

[10] Alex Dieke (in correspondence with the author) notes a similar phenomenon occurred in Europe in the 1990s, where TPG and Deutsche Post both saw improved routing times and reduced costs and employment.

[11] Interestingly, it is positively correlated with the number of staff per office. Use of another measure of "reform"—countries with a World Bank project listed in the Bank's postal projects database which began before 2000, that had a policy/regulatory reform component—suggests that project countries see slightly above average performance on the performance index. However, the result is not statistically significant and is based on only eight countries that fit the criteria (Gabon, Guatemala, Guinea Bissau, Morocco, Tanzania, Togo, and Trinidad and Tobago).

[12] The World Bank liberalization index was not used in regression analysis because it was created based on a small and unrepresentative sample.

Charles Kenny

Chapter 4

Questioning the Monopoly-Supported Postal USO in Developing Countries

The monopoly-supported universal service obligation (USO) is usually defended on the grounds that the monopoly allows for cross-subsidy in letter services that in turn allows universal access to a service of great importance to all. This paper argues that letter delivery (as opposed to other services that may be provided by post offices) is not in universal demand in poor countries, that the size of the market in developing countries is such that USOs could not be met under the monopoly model, and that the monopoly carries heavy costs for sector development and consumer welfare. It proposes in the place of the postal USO a competitive approach involving universal access to a range of services that poor people have a need to access.

The Theory of the Monopoly-supported USO

The European Union (EU) defines universal service to post in the following terms:

> "Member States shall ensure.. the permanent provision of a postal service of a specified quality at all points in their territory at affordable prices for all users… the universal service provider(s) guarantee(s) every working day… one delivery to the home or premises of every legal or natural person…[for] postal items up to two kilograms [and] postal packages up to 10 kilograms…"

Traditionally this USO has been linked with monopoly provision of services. The theory of the monopoly-provided USO can be summed up as follows. Mail delivery to the home is an important public service to which all should have access. For many low-volume or difficult to service users, however, the market price of mail services would be prohibitively high. In order to serve those customers while allowing for a financially sustainable postal network, a monopoly operator charges a single stamp rate for nationwide delivery, with "profits" made from the delivery of mail to high-volume areas and users

(where the price of the stamp is higher than the cost of delivery) used to support "loss-making" delivery operations for low-volume areas and users.

Many developing countries have adopted the monopoly USO model for their own postal systems. They do not tend to have USOs as stringent as the EU's, while in many cases, the obligation is rather imprecise or undefined, it rarely involves home delivery, for example.[1] Nonetheless the general model holds that a provider will ensure one-price letter delivery across its national territory, funding loss-making routes with the revenues that it is guaranteed from a monopoly, over delivery on profitable routes.

The model has proven itself practicable (if not necessarily efficient) in many wealthy countries. However, its application in developing countries is likely to be inefficient, impractical, and inequitable. This paper argues that a narrow, mail-based USO should be abandoned and the postal sector opened to competition. In place of a mail-only USO, governments in developing countries might decide to extend access to a bundled range of services widely in demand by urban, rural, poor, and rich alike. These services might be delivered through post office franchises.

Do We Want a USO for Letter Delivery in Developing Countries?

Does everyone in the developing world need letter delivery in the same way as one might argue the need for primary education or health care? It is perhaps worth asking this question in the context of severe resource constraints that mean the goals of universal primary education or universal access to basic health care are far from being reached. More narrowly, similar language of universality is used in other infrastructure sectors including electricity. There (too) the language conflicts with the reality—in part because of inefficiencies and inequities of provision, but also because there are only so many resources, and a great many needs for those resources to meet.

Is there evidence that everyone in developing countries needs (or would use) letter delivery to a nearby post office every business day or every week? To begin to answer that question it is worth looking at demand for letter services in poor countries. Overall demand for postal services is very closely correlated with the size of an economy. Smaller (poorer) economies see lower mail volumes (letters per capita). Countries with a GDP per capita (PPP) of below $1,000 see mail volumes of below 1 per person per year—compared with closer to 100 per person in countries with a GDP per capita of above $5,000 (Table 1).

Constraints on demand due to inadequate or absent service delivery will be one factor behind low levels of use, but by far the dominant cause is demand related to income—as suggested by the results of both postal reform and extending access. Under reform, service quality improves, and this tends to increase use of the postal sector. But the usage increase, while impressive, is in the region of perhaps 100 percent, rather than the 10,000 percent differences between low income and high income country usage rates. For example, successful postal reform in Tanzania saw mail volumes increase from 0.87 to 1.26 letters per capita per year during 1994-98. This post-reform figure remains only approximately 0.17 percent of US per capita mail volumes. There are considerable limits on the demand for mail services in poor countries even where the mail service provided is of a reasonable quality.

Table 1. Postal structure and development

Indicator	Average for GDP Per Capita (PPP) Band		
	<$1,000	*$1,000-$5,000*	*>$5,000*
Letters/Capita	0.9	4.6	98.4
Total letter volume	10m	634m	2,468m
KM2 per post office	4,702	1,738	458

Source: Calculated from UPU and World Bank data, 2001

Regarding extended access, there does not seem to be a relationship between the percentage of the population covered by postal service and letter volumes per capita in developing countries—extending network access, like improving network quality, does not apparently uncover significant unmet demand for postal services (Kenny and Qiang, 2004).

The *average* consumer in poorer countries sends perhaps one letter per year—and we know that the great majority will neither send nor receive a single letter.[2] In particular, there is little demand from businesses (which account for as much as 80 percent of letters sent [Lee, 2004]) to deliver mail to the poorest in developing countries. This is because most do not have services that require billing (telephony or electricity, as it might be), and they are hardly an attractive target for companies in terms of marketing purposes.

If the majority of the population never receives a letter in the poorest countries, and might not even after significant postal reform, the concept of universal service is somewhat nonsensical.[3] And for the great majority of the over one billion people worldwide who live on less than a dollar a day, it is not clear how they would write a letter or what they would do with one even if they got it—they are illiterate (Kenny, 2002).

Overall, there does not appear to be significant demand for universal letter service even if it were to be a financially viable option. If universality *was* achieved using some sort of subsidy mechanism, given the direction of most mail, this would constitute a regressive intervention. Given that the beneficiaries would be primarily large businesses and wealthier individuals, general government revenues would be used to support these wealthy few with little benefit to the poor and illiterate.

On the other hand, post offices can deliver far more than mail. In many developing countries, postal payments represent over 50 percent of total postal revenues, and post offices remain the principal point of access to financial services for the majority of the working population (Walsh, 2001). Many post offices also act as the interface for government-to-citizen interaction such as license payments. Adding together this bundle of services that post offices frequently deliver, governments may well decide that it is vital for the great majority or all of citizens to be able to reach the service delivery point.

It should be noted that we are some way from the goal of universal (or even widespread) use of a post office. First, many people in poor countries do not even live within usable distance of a post office, as is suggested by the fact that, for countries with a GDP per capita of under $1,000, there is only one post office for each 4,700 square kilometers of territory as compared to one office per 458 square kilometers for countries with a

GDP per capita of above $5,000. Second, it appears that only a very small percentage of that population already in walking distance of a post office currently use it even in reformed developing country markets. In Tanzania, for example, an average of about 0.4 percent of the population within the catchment area of a post office visit that office each week (PWC, 2004).[4]

Regardless, if the goal is universal access to a whole range of services out of which delivery of letter mail is an unimportant component for most citizens, again, a strictly *postal* USO makes little sense. And if we are to look at the USO as a broad commitment to support a whole range of government-to-citizen interactions, perhaps along with financial and other services, the traditional industrialized country model of financing the USO seems inappropriate even if it were workable in developing countries. Can we justify a funding mechanism that forces the urban letter-stamp purchaser to subsidize the transactions costs of a rural applicant for a car license as part of a system that frequently provides substandard letter delivery?

Could a Letter USO be Supported in Developing Countries under the Monopoly Model?

Even if developing countries desire a monopoly-supported USO model, it appears unlikely to be sustainable in many countries. This section argues that developing countries, with small postal markets, cannot benefit from significant scale economies (which in turn drives up the per-unit cost of letter delivery) and face far more complicated environments in which to deliver mail. These factors combined mean that even a limited USO model supported by monopoly rights would be unsustainable in many low-income countries.

In order for the USO to be sustainable through cross-subsidy from profitable routes to unprofitable ones, there have to be enough profitable routes (and few enough unprofitable ones) to allow for universal service at a reasonable price. The evidence suggests, however, that average per piece costs in developing countries are very high, both due to scale effects but also a large proportion of expensive-to-service rural customers. This suggests that there is not the amount of profitable service at an acceptable price to support the letter USO.

By and large (and with obvious exceptions such as China and India), absolute mail volumes in poorer countries are very small. Total mail volumes in countries under $1,000 GDP per capita average 10 million pieces, compared to 2.5 billion pieces in countries with a GDP per capita of over $5,000 (Table 1).

This is a problem because it is clear that there are fixed-costs associated with mail systems that make low-volume environments high-cost ones as well. Scale economies, due to factors such as automated processing and (more significantly) scale effects in delivery, will be one factor behind a relationship between total mail volumes and letters delivered per employee. Countries that see delivery of fewer than one million letters a year deliver on average below 4,000 letters per employee per year (such countries include Cape Verde, with just over 939,000 letters delivered by a staff of 3,947). This compares to over 60,000 per employee in countries where over 100 million letters are delivered a year (South Africa delivers nearly 2 billion letters using a staff of 74,000, for example). This is a 15-fold productivity difference (Table 2).

We can see the impact of scale economies by looking at estimates based on the United States Postal

Table 1. Cross-country evidence of scale economies in posts

	Average for Total Letters Delivered Band		
	<1,000,000	*1,000,000 – 100,000,000*	*>100,000,000*
Letters/Employee	3,587	20,693	59,739

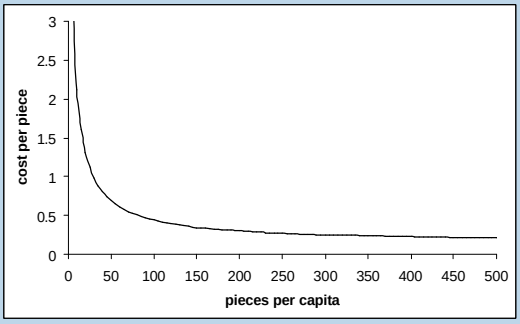
Source: Calculated from UPU and World Bank data, 2001

Service (USPS) on the costs of a US-style service in lower volume environments with lower input costs. The USPS will differ dramatically in terms of automation, route topography, mix of mail, efficiency, and the nature of its customer base—and so the model is only an approximation (made less accurate by a weak proxy for input costs—that of GDP per capita). While Cohen et. al. show that it functions reasonably well in estimating features of rich country postal operations, it is very likely that the adjusted model will become increasingly inaccurate as a guide when looking at low-income postal markets (Cohen et. al. 2003a).

It is also worth noting that UPU data suggests a fairly weak relationship between GDP per capita and total costs per letter (Kenny and Qiang, 2003). This is somewhat surprising given evidence that poor countries in general see low volumes and so will benefit less from economies of scale. The result will be due at least in part to the facts that labor costs are lower in developing countries and that most developing countries offer a lower quality, extent, and scope of services (not delivery to the door, not six days a week, not fast and reliable, and absent ancillary services such as pension payments).

With those caveats, Figure 1 shows what the Cohen study and World Bank data suggests the cost of delivering a letter under United States' USO standards would be in countries with lower mail volumes. As the number of pieces per capita

Figure 1. Estimated relationship between costs per letter and volumes



drop below 100 per year, costs rise dramatically above 50 cents per piece.[5] This may help to explain why the United States only mandated universal home delivery in 1958, when letter volumes were above 300 per person per year (Campbell, 2004).

Table 3 suggests the breakdown of costs of US-quality delivery per piece of mail in a system of universal service in an economy where postal volumes per capita were low, based on data from the Cohen et. al. study and the World Bank. As seen, delivery would be expensive—over $0.76 per letter in a country with mail volumes of 10 per capita. Even without delivery to the door, the costs are high—over $0.60 per letter.[6] Again, this data only suggests orders of magnitude, as it is based on United States' postal data adjusting for input costs—and the USPS is an operation in a very different (broadly more positive) environ-

Table 3. Estimated cost breakdown of USO services in low-volume environments

	Cost of Mail/Piece ($) Pieces/Capita		
	10	5	1
Mail processing	0.06	0.07	0.16
Transportation	0.02	0.03	0.07
Window service	0.08	0.13	0.34
Delivery	0.76	1.19	3.06
Other	0.44	0.69	1.77
Total	**1.36**	**2.11**	**5.40**

ment from most developing countries. Nonetheless, the point is clear that letter delivery becomes considerably more expensive in low-volume environments, not merely because of rising costs of home delivery, but also because the other fixed costs of the network are divided up amongst far fewer stamp purchases.

The reality for a great majority of poor countries is that total mail volumes will be small enough to suggest severe scale diseconomies—mail delivery will be comparatively very expensive to provide to all, let alone the difficult-to-serve.

Making this problem more acute is the fact that a far greater percentage of people in developing countries are difficult-to-serve rural customers—69 percent in low income countries (World Bank, 2002). Income density—an important measure of "demand for postal services per square kilometer"—is far lower in developing countries than rich ones—$39,000 per square kilometer in sub-Saharan Africa as compared to $658,000 in high income countries, for example (Kenny, 2002). Both of these factors suggest that even less stringent USO may cost more to meet in poor countries than they would in rich ones.

There is significant variation in all of these numbers—some postal operations are more efficient than others, and deliver more mail at the same level of GDP than others. It seems clear that postal performance (in terms of letters per capita) is correlated with greater operational efficiency (measured by letters per staff, for example) and trust in the postal network (itself reflecting quality of service) (Kenny and Qiang, 2003). At the same time, some developing countries have very large, very dense postal markets where delivery is far more straightforward. Nonetheless, the point remains that, in most cases, even less stringent USOs would be more expensive per letter than similar obligations in the developed world.

At the same time, the profitable market that might provide cross-subsidy is far smaller, because of the lower level of urban development and large corporate customers. Even in some of the richer, most population-dense, urbanized developing countries about 90 percent of routes are loss-making.[7] This situation would be worse in countries where only 31 percent of the population were urban (the case in low income countries). The cost and complexity of service delivery, especially in small markets, will help account for the fact that post offices frequently make significant losses in the developing world. Forty-five percent of countries with GDP per capita under $5,000 see revenues below operating expenses (let alone total costs).[8]

Putting revenues and indicators of costs together suggests the scale of the problem. Low income countries will average total postal volumes lower than 10 million pieces a year. Imagine a national stamp price of $0.12.[9] National stamp revenues will bring in perhaps $1 million per year. This to support delivery to a population that is 69 percent rural and on average receives less than one piece of mail per year.

The price of delivery and the related costs of USOs can be significantly reduced from the hypothetical levels of Table 3, if the USO is realistically defined. In the United States, mail that is nondelivered (i.e., is picked up at post offices) accounts for 21 percent of volume and 67 percent of profits. In Italy, similar numbers are 14 and 42 percent. In other words, avoiding home-delivery dramatically reduces costs even in high-density environments such as in the United States (Cohen et. al. 2003a). Abandoning home delivery for a post office box system (the *de jure* case in many developing countries, the *de facto* case in the majority) will greatly reduce costs. This has been done in Senegal, for example, where home delivery carries an extra charge.

Asymmetric charging can also help raise revenues for rural access. Historically, differential charges applied in nondeveloped markets—with the postal service in 17th century England charging four times as much to deliver a letter from London to Scotland than within London (Ogilvie, 1893).[10] Furthermore, "universal service" does not have to mean uniform service. In Tanzania, the quality of service is lower in rural areas, with service only provided to post offices, and at D+4 rather than D+1. Again, in Costa Rica, the target is D+2 for urban and D+4 for rural.

Nonetheless, even differential service targets—as part of the USO—are unlikely to reduce costs to allow for a sustainable universal service, to be provided at a reasonable stamp price, on the back of the few profitable urban routes in low income countries. And so monopoly provision, even if efficiently run, would not garner the profits large enough to come close to true universal service provision.

Against the Legal Monopoly

The two arguments for monopoly provision in the postal sector are first, that the sector is a natural monopoly and second, that the monopoly allows for cross-subsidy of services and so meeting USO targets.

The first argument is not a good argument, even in theory, for enforcing a *de jure* monopoly. There are some reasons to believe that mail delivery services may be "natural monopolies". Mail delivery involves a network, and network externalities suggest that one big network serving a given area will, other things being equal, be more efficient than many overlapping networks providing the same service. In other words, if you leave a competitive postal market alone, it is likely that one competitor will eventually win out to control all, or nearly all, of the market.[11] But this is no justification for legally enforcing that market from the start. Quite the opposite. It is a reason to regulate the market so that a monopolist cannot take advantage of its position to squash competition and over-charge consumers for services.

Furthermore, the "natural monopoly" characteristic of posts, especially in developing countries, may be oversold. We don't need to go too far from basic posts to see that competition can work even in "networked postal" industries in developing countries—DHL, FedEx, and UPS demonstrate that competition can flourish where obligations are few and prices can reflect costs. And in a developing country environment where total postal volumes are frequently too small to garner significant scale economies, the disadvantages of market fragmentation are reduced. Some evidence for this is that in many developing countries, a number of large postal users legally or illegally bypass postal incumbents to provide their own services (in Jordan, legal competitive op-

erators provide services to deliver bills despite serious handicapping, for example).[12]

The widespread bypassing of incumbent postal providers in developing countries suggests that, whatever theoretical advantages to scale, the inefficiency of monopoly government provision frequently outweighs them. Monopolies are likely to be less efficient and less innovative than competitive environments because the usual incentive to innovation and efficiency (the fear of losing customers to the competition) is not there. When the monopoly in question is operated by the government, the "theoretical" problem becomes even more acute. There is not even the incentive to maximize the quality and efficiency of services at a given cost in order to maximize (revenues and) profits. In an environment where the government monopoly service provider provides an inefficient, poor quality service, any "natural monopoly" advantages it should theoretically enjoy are frequently outweighed by the fact that post offices have not been run on sound business practices.

Not only are staffing levels frequently very high, but pricing structures suggest that the post office may even be losing money delivering to what should be their more profitable urban and corporate customers. A monopoly will only produce revenues to fund the obligation if prices, somewhere, are higher than costs. Given under-pricing and inefficiency of many government-controlled postal monopolies, this may be a questionable assumption. Furthermore, service standards remain low—as suggested by the low level of trust in many postal operators. In response to the question "do you trust your country's postal system sufficiently to have a friend mail a small package worth $100 to you?" the average survey respondent in Nigeria scored the post office 1.7 on a scale of one (no trust at all) to seven (complete trust) (Kirkman et. al. 2002).

In these cases, not only is an enforced monopoly failing to deliver on the promises of the USO, but by stifling competition, it is forcing people who use the post to use an inefficient and unreliable service provider. For little or no benefit to the rural poor, the monopoly penalizes the corporate and urban user.

The practical example of the benefits of competition over monopoly in a poor developing country is Tanzania, where during a process of liberalization, total mail volume increased from 0.87 letters/capita/year to 1.26 between 1994 and 1998 as we have seen, while the postal company moved from loss to profit, and the number of post offices increased (UPU and WB 2001). Prices did rise closer to costs, but consumers were clearly willing to pay higher prices for a higher quality of services.

The second argument for monopoly is that if it were removed in a system of one-price national mail delivery, competitors unburdened by a USO would serve those routes that cost less to service than the price of a stamp. Once competitors had "skimmed the cream" from these routes, the USO provider would be left serving only (or mainly) routes that were unprofitable at the current stamp price, leading to significant losses.

The cross-subsidy under monopoly model is a terribly inefficient way to support access targets, however. The small number of large urban customers posting mail in urban areas will have to be heavily taxed (by paying stamp prices far above the cost to deliver their mail) to meet the service requirements of the majority of rural users. And theory suggests it is the worst type of tax, in that its very specific—operating on mail services only (theory suggest broad taxes—like the income tax—are more efficient because they distort the market less). Heavily

taxing the large urban customer also encourages substitution, which depresses the volume of the very traffic used to fund the USO. Furthermore, the sector looses the benefit of competition (greater efficiency, more innovation) in a market that accounts for some major part of the traffic.

The monopoly is also a suboptimal way of "compensating" the operator because there is no necessary connection with the cost of providing the USO. In rich countries, the value of the monopoly will be too much—in (rural, low population-density) New Zealand for example, the incumbent is providing USO services without monopoly and at no additional cost to the government. As we have seen, in poor countries, any potential profits from a monopoly on urban routes is likely to be far too little to meet any meaningful definition of universal service. A link between the value of the monopoly and the cost of universal service can be made in countries where the monopoly is "worth too much" through regulation of pricing for monopoly services. However, in countries with few profitable routes, it is doubtful that the monopoly profit-maximizing price structure would generate sufficient revenues to fund the USO, rendering pricing regulation irrelevant to meet this goal.[13] The justification for the monopoly is not practicable, the results of the monopoly are poor-quality services and low use.[14]

It should be noted that the monopoly USO model *can* work. Trinidad and Tobago has increased household delivery to approximately 95 percent of population under the model, for example, as part of a broader reform effort that saw postal volumes and revenues approximately double, and quality of service and consumer satisfaction increase.[15] But even in a wealthier developing country, where the postal monopoly is delivering a comparatively efficient cost-related service and where the monopoly-funding-USO model may plausibly raise sufficient funds to support rural access, it is still far from the best way of extending access.

A New Model

At the moment in many countries the "postal sector" is seen as coterminous with the post office. It may be more constructive to view letter and parcel delivery as the "postal sector". Some proportion of letters and parcels in developing countries are delivered via the post office, which is one service provider in the postal sector. The post office frequently also provides services in other sectors, including the financial and government services sectors.

It is important to make these distinctions because postal policy and regulation should be primarily involved with improving the performance of the postal sector, not the post office. Conversely, the post office frequently has roles in other sectors—it may be a vehicle for the delivery of a range of government services, for example. Ensuring the effective delivery of this wider range of services is the concern of many parts of government—the financial regulator for banking services, for example, or the transport department if the post office is involved in vehicle license issuance and delivery. Suggesting that postal policy and regulation should be about improved postal sector performance, and understanding that the post office's current and potential role spans many sectors, may help to clarify the roles and objectives for different parts of government and for the post office itself, allowing for a new model of both postal and government services delivery.

Whatever is decided about the services provided to every citizen, in the poorest countries the monopoly-supported USO for letter delivery is likely to be unworkable and damaging to consumers of postal services. The first two steps on a path to postal sector reform should be to abandon the monopoly and seriously reconsider the postal USO.

What would be a sustainable model to replace the monopoly, postal specific USO? There is some evidence in developing countries that increased private sector involvement in the incumbent as part of a broader process of reform covering issues such as staffing, tariffs, competition, and regulation may be of help. There should be no monopoly for *any* provision of postal services. However, either general competition laws or postal-specific regulatory instruments should ensure fair competition through (for example) the enforcement of termination agreements. Building such capacity should be an early element of the reform process. Regulation of financial and other services provided would, naturally, fall under the purview of the suitable sector regulator.

Looking at universal service requirements, using taxes on operators may not be plausible in the poorest countries—there aren't likely to be enough postal and logistics profits to tax to meet the costs of universal service schemes[16]—but it may be a second-best solution for upper middle-income countries like Trinidad and Tobago, assuming it does not discriminate against certain types of operators. But the issue of "universal service" is one that should be tackled—in a broader context than the postal sector alone—and should almost certainly involve subsidies based on a broader tax-base.

In many countries, the most important social function of the post office is not as a letter delivery mechanism, but in delivery of pensions, financial services, or other activities. Under those circumstances, what users most want is "universal access" to those services, not necessarily to letter delivery. At the same time, there are clear economies of scope in siting services together in one location.

Governments provide or support a number of services that do, or it is felt should, reach the great majority of citizens—from primary education and basic health care to access to polling places, registrations, and (perhaps) postal services. Some of these services can be provided "stand-alone," others would benefit significantly from economies of scope. A first step towards a coherent "universal service" strategy would be to decide on a list of services that governments believe should, and feasibly can, be provided to the great majority of citizenry and then look for opportunities to "bundle" those services.

"Bundling" is the idea behind postal financial services, the telecenter, and a number of other institutions with a mixed track record. This is perhaps not the fault of the concept, but of its implementation—perhaps the wrong provider or the wrong services provided. These failures suggest the importance of a community-driven exercise in choosing services and an entrepreneurial (sustainable) model for providing them.

How would we get from here to there? A five-step program might be:

(a) Abandon the monopoly. It doesn't help, and it isn't enforced.

(b) Carry out basic management and financial reform of the post office—restaffing, a management contract, returning to financial stability and setting up transparent accounting systems. At the same time, reform and separate the postal financial system.

(c) Ensure the possibility of fair competition in mail delivery as part of a postal policy and legal reform process This may be possible by applying existing competition law and enforcement to postal operators or may require specific regulatory institutional structures to oversee the postal sector.[17]

(d) Develop a method to greatly increase private sector involvement in both the retail and delivery portions of current postal operations—perhaps including retail franchising, and sale of the public operator's network delivery functions.

(e) As part of a participatory process, agree the scope of bundled "universal" services to be offered by postal retail outlets (starting at a level that is minimal, implementable and sustainable), the number and approximate geographic location of the outlets needed to meet USO goals, and a method to select the delivery mechanism(s) for these services.

One possible model that would require considerable development to be an implementable, practical solution might involve a system where there is a private franchise operated by a local entrepreneur that provides communications and services in every town or village with more than a minimum sustainable number of people. Services may include basic finance, post office boxes (for those that want them) and postal collection, licenses, registrations and pensions. The government, as part of a participatory process, would set certain minimum services and standards that must be provided by the franchise. In addition, the franchisee would provide any other services it chose. The franchises (one per town or village) are auctioned to the highest bidder or, if no one will pay, a subsidy auction is used.

Most services apart from government-to-citizen business are offered at prices that reflect costs. These prices would be regulated if the service provided is an effective monopoly. A private company provides (comparatively infrequent, regular, sustainable) physical collection and delivery to the franchises, picking up mail from a set number of interconnection points. This company is also selected competitively, and it receives a regulated (cost-based) amount per item delivered to or taken from the franchise plus (if required) an up-front subsidy. The company and franchises would have to provide letter delivery between post franchises at one price nationwide. The company is free to provide other postal services, but has no monopoly on service delivery.

Again, it is important to make the point that this paper has been based largely on generalities and averages. There will be developing countries where a monopoly-enforced cross-subsidy model is providing services of value to the rural poor and where they are doing so at some reasonable level of efficiency. Even if they may benefit from reform, the transition involved for such cases will have to be carefully designed to ensure the continuation of services. Furthermore, the record to date of reform is patchy, suggesting we have more to learn about how to operationalize the competitive model.

Nonetheless, it is likely that moving from an unworkable monopoly model designed to deliver a service in low demand, to a functioning competitive model that delivers a range of services that poor people find important and that might have a dramatic impact on quality of life, at little cost in many developing countries. Even taking just the first steps of abandoning the monopoly postal USO would be significant progress.

As a final note, it should be pointed out that abandoning a letter-post USO would pose a challenge for countries in their relations with the UPU. The UPU Letter Manual states that "*…in order to support the concept of the single postal territory of the Union, member countries shall ensure that all users/customers enjoy the right to a universal postal service involving the permanent provision of quality basic postal services at all points in their territory, at affordable prices.*" (UPU, 2001). Perhaps it is fair to say that this obligation was only introduced in the 1990s and has since been met more in the spirit than in the letter in many developing countries.

Notes

[1] Even within the EU there remain questions as to the nature of the USO—does it demand a uniform tariff, for example?

[2] At least not through the network captured by Universal Postal Union (UPU) statistics.

[3] Regarding home delivery, many (most) poor and rural people do not live in households with a recognized address, so they could not receive mail if it were being delivered.

[4] In Malawi, the figure is closer to 0.2 percent.

[5] Cohen et. al. Provide data on prices for US quality USO at United States' input costs for various levels of letter per capita. To adjust (at a high level of approximation) for differing input costs (primarily labor), the author used a regression of GDP PPP per capita on letters/capita to obtain estimates for GDP per capita at various levels of letters/capita. I then multiplied the "unadjusted" Cohen estimates by (predicted GDP)/(United States GDP) in order to get output cost estimates adjusted for input costs.

[7] The procedure to adjust the Cohen et., al. estimates was similar to the above except that GDP per capita at a given level of letters per capita was calculated from a regression of GDP on letters per capita for countries with letters/capita values within 50 percent of those listed in the table (0.5 to 1.5 letters, 2.5 to 7.5 letters and 5 to 15 letters per capita respectively).

[7] Traffic is measured by revenues, in this case. British Postal Consultancy Service (2002)

[8] Raising prices to the levels suggested by the Cohen et. al. (2003a) study would be an unworkable solution—this would doubtless reduce demand in favor of alternate providers, thereby further raising per-unit costs.

[9] Trinidad and Tobago's price after rate increases.

[10] The United States only introduced one-price delivery in 1885 (Campbell, 2004). It is worth noting that in both the United Kingdom and the United States, the postal monopoly far pre-dates one-price delivery and universal service obligations, suggesting that the justificatory link between the three developed ex-post.

[11] This appears to be the case in a number of developed markets where competition has been introduced—for example, New Zealand and Sweden.

[12] Chapter 5 notes that many developing countries with weak or non-existent regulatory structures nonetheless see more competition than developed countries with aggressively pro-competitive regulators such as the United Kingdom (where Royal Mail still has a 99.75 percent market share). It should be noted that the presence of *de facto* competition, almost certainly based on quality rather than price, suggests that an incumbent that improved the quality of service delivery in response to *de jure* competition might actually see a growing market share even if it were to raise its prices.

[13] Furthermore, such efforts appear fraught with computational difficulties in practice and require far more market intelligence than most developing country regulators (where there are such regulators) possess (see Chapter 5)

[14] Again, the history of the British postal network may provide a suggestive example here—enforcement of the postal monopoly by Charles I was one of many grievances of Parliament that led to the English Civil War (Ogilvie, 1893). In 16th century Britain, the monopoly was used to "farm" profits, whereas today in many developing countries it has some role as a source of government employment. In both cases, however, it is likely that the disadvantage to the consumer is greater than the advantage to the monopoly beneficiary.

[15] Walsh, 2001 and comments by Juan Ianni. From 1999 to 2003 delivery times fell from one week to nearly all mail by D+2, volumes rose 133 percent, revenues 75 percent, and a consumer satisfaction index went from 50 percent to approximately 85 percent.

[16] Taking China as an example, a 2 percent tax on the air express market would raise perhaps $30 million while costs of the USO can be conservatively estimated at $340 million (Chapter 5).

[17] Given that there appears to be *de facto* competition for postal services in many developing countries already, despite the hurdles presented by a *de jure* monopoly, the need for considerable regulatory capacity may be limited.

Boutheina Guermazi
Isabelle Segni

Chapter 5

Postal Policy and Regulatory Reform in Developing Countries

Developing and transition countries can not afford to ignore the competitive pressures that are transforming the postal sector. Rather than taking an ad hoc approach to postal sector reform, developing countries need to implement a clear policy agenda that embraces liberalization and responds to customers' needs for improved service. Any policy reform strategy will have to address the complex question of universal service. This paper demonstrates that the regulatory approach to universal service used in developed countries is ill-suited to the low-volume, low-demand environment of developing countries.

A more realistic approach, based on universal access rather than universal service, echoes similar developments in telecommunications policy and is warranted in a developing country context. Once the decision has been made to establish a pro-competitive, liberalized postal regime, it is essential for developing countries to put in place market-oriented regulatory rules, processes, and institutions by which the economic behavior of postal players (including the universal service provider), is to be regulated. While there is no single recipe for regulatory reform, this paper presents the argument that valuable lessons could be derived from the regulatory experience of developed countries in the postal sector as well as from the experience of other network industries, notably telecommunications. These lessons need to be further tailored to better suit the peculiarities of developing countries' low-volume, limited demand, and constrained finances of the postal environment.

Towards a Clear Policy Agenda for Postal Sector Reform

In most developing countries postal reforms have not been implemented in the context of a clear postal sector policy. Often decisions to reorganize the postal market and the incumbent are hastily taken to accommodate the timetable of the telecommunication reform or to solve, momentarily, a financial crisis experienced by the postal

incumbent. Governments rarely proactively develop a long-term postal sector strategy, or think through the design of an effective regulatory framework to achieve the postal sector's reform objectives. Formulating a clear policy agenda for postal sector reform is a critical task for policymakers in developing countries. This paper identifies two elements for sustainable policy reform in developing countries. First, the need to align the legal and regulatory framework with market realities; developing countries can no longer ignore the phenomenon of *de facto* competition. Second, developing countries need to revisit their approach to universal service to make it better suited to their postal market conditions.

Liberalizing the Market: From *de facto* to *de jure* Competition

The past decade has witnessed a fundamental shift in public policies for network utilities from a long-standing natural monopoly approach towards a new paradigm embracing liberalization, open markets, and the dismantling of public monopolies. Eperience has demonstrated that consumers have benefited from open competition through improved service performance, lower prices, and expanded end-user choices—benefits not otherwise secured under a monopoly environment.[1] However, this sweeping paradigm shift has not effected all utilities equally. Postal services have lagged behind other utilities in responding to this evolution in economic thinking. In most countries the postal sector continues to rely on government ownership and reserved areas designed to promote socially equitable access. The vestiges of the monopoly survived even in countries that opted for liberalization as a method of sector reform. Unlike liberalization in other utility sectors, postal sector policymakers in developed countries are continuously attempting to compromise between the objectives of introducing competition and dismantling barriers to entry, and ensuring the financial stability of traditional monopolies entrusted with universal service mandate. In most cases, this complex compromise has resulted in a market structure that is prone to distortions.

In developing countries, liberalization of the postal delivery service has not followed a predefined, well-conceived policy reform agenda. Rather, it is developed as an *ad hoc* reaction to respond to the high cost and poor performance of the public postal operator. Unsatisfied demand has driven an unofficial liberalization process and growing *de facto* competition defying the monopoly. In Latin America, incumbent postal operators have as little as 20 percent of the traditional mail market due to their inefficiency and ongoing failure to satisfy customer demands. In other markets there is evidence of other forms of substitution to ensure that mail services are provided. Many utility companies have their own mail distribution systems and smaller companies have dedicated mail messengers to ensure mail delivery. Such alternative delivery mechanisms show that if customers do not believe in the government operated postal system, they will find ways to ensure their mail is delivered. (See also Chapter 3: *Questioning the Monopoly-Supported Postal USO in Developing Countries*)

Given the failure of the public operator to provide a better and more reliable postal service—and the increased customer pressure for such service—developing countries can ill-afford to ignore competitive pressures that are already informally transforming the market. A clear policy agenda responding to customer needs should be articulated and implemented. New postal laws reflecting market liberalization strategies are the next major milestone in developing countries' sector policy reform.

From Universal Service to Universal Access

Defined as *"an obligation to provide a ubiquitous service at a uniform price at a reasonably uniform standard of quality,"* and long considered a cornerstone for the postal sector, the concept of universal service has recently come under intense pressure. Its relevance as a sustainable public policy goal is also being questioned.

In a low-volume, low-demand environment the traditional monopoly-supported universal service—as experienced in high mail-volume industrialized countries—is of limited relevance (for a detailed economic analysis, see "*Questioning the Monopoly*"). The USP can be compensated for the burden of universal service obligations (USO) through different schemes. The most frequently used scheme is that of the reserved area from which revenues are generated to cover the cost of USO. Another scheme is a universal fund in which all sector operators contribute – usually through license fees – to support the universal service.[2] Lastly, direct and indirect subsidies[3] allow the USP to receive compensation for the extra costs related to USO. However, all these schemes have shortcomings:

(a) In an environment with an average of less than one letter item per capita, per year, revenues coming from a letter monopoly are unlikely to cover the costs associated with USOs (particularly the fixed-costs of post offices throughout the national territory, and over-staffing with civil servants).[4] Equally, it is unlikely that taxing private postal operators at an acceptable level will raise enough resources to cover the USO costs.[5] In addition, regulators do not have access to sufficient information to define a fair licensing fee structure that is based on clear economic analysis, or to assess the real cost associated with the USO.

(b) Both the monopoly and the license fee schemes create potential impediments to sector development: monopolies lack competitive pressures to improve the incumbent's performance, while high taxes can deter efficient private operators from entering the market, hence, potentially leading to unmet demand.

(c) Furthermore, in developing countries, the monopoly approach is a major burden for the government. The public postal operator often represents a significant fiscal burden on the state budget. Forty-five percent of countries with GDP per capita under $5,000 have postal revenues below operating expenses (let alone total costs). Almost three-quarters of African public postal operators reported a negative net result, and this figure could well be under-estimated due to unreliable accounting data reported by operators.[6] In some countries, the magnitude of cumulated losses (up to 2 percent of GDP in one case) is such that governments are unable to find politically and fiscally acceptable schemes to bail out the public postal operator.

(d) The obligation to provide universal service amounts to providing often excessive cross-subsides between high-cost and low-cost routes and subsidies from the state budget. Subsidy schemes might not be sustainable. In a competitive environment subsidies (whether direct or indirect) risk a lack of transparency (in the absence of cost accounting system) and can jeopardize the level-playing-field between competitors.

(e) Finally, universal service in developing countries is no more than a "legal fiction". Although the network of post offices often offers the largest outreach to rural areas, there is no real "universal access" level.[7] Delivery is infrequent, mail service is not secured nor is it reliable, and there is only limited home delivery due to the absence of addressing systems.

This discussion shows that the traditional approach is not suitable for developing countries. Instead of focusing on an ill-defined, all-encompassing universal service that is not justified economically and is beyond the reach of developing countries, governments are better off rethinking the notion of universal service concept. An evolution is needed from a static idealistic universal service to dynamic and realistic universal access schemes. This proposal is far from revolutionary in the context of utility networks. In the telecommunications sector for instance, many developing countries have reached the conclusion that in their environment the Western concept of universal service is unrealistic. Instead, developing countries have their own version of universal service, wherein public access to telecommunications services is at an acceptable distance from people's homes. The mechanisms chosen to achieve universal access cover a range of policy options. Examples include: pay phones, public call offices, and community telecenters.

Given the peculiarities of the postal sector and the legacy of universal service, policy reform is needed to rethink the extent and form of a postal universal service policy, and define innovative and sustainable funding mechanisms to reduce the fiscal drain on governments. Formulating innovative access schemes and their implementation is by far the most important policy challenge in a liberalized framework. Smart subsidies combined with innovative interconnection schemes could enhance the provision of universal service in remote areas, at lower cost. In addition, policymakers should take into consideration the current trend to bundle a variety of services distributed through the postal network (government, financial, communication, see "*Reinventing the Post Office*").

Towards an Effective Postal Regulatory Framework

Once the decision is made to establish a liberalized postal regime, it is essential that developing countries put in place a regulatory framework to ensure a smooth transition from a monopoly-regime to a market-based regime for postal service delivery. Market-oriented regulatory rules, processes, and institutions by which the economic behavior of postal players (including the USP) is to be monitored are key to securing the sustainability of the reform.

Similar to other networked industries, regulation in the postal sector may be needed to ensure viable competition (starting with aligning the legal and regulatory framework to the actual level of sector competition), correct market failures, and protect both consumers' and investors' interests. In a perfect competitive scenario these goals could be reached by unleashing market forces. However, in the context of developing countries a purely *laissez-faire* approach—subject only to general competition law—may not be adequate to protect public interest, at least immediately given the lack of strong antitrust and competition law tradition. Industry specific regulation may be required.

While there is no single recipe for regulatory reform, this paper presents the argument that les-

sons could be derived from the regulatory experience of developed countries, in particular the European Union's (EU) approach, in the postal sector as well as from the accumulated experience of other network industries, notably telecommunications.

International Postal Regulation Experiences

Worldwide, postal experience suggests that competitive pressure has resulted (in most cases) in improved service performance, increased end-user choices, lowered prices, and increased competitiveness of the business sector which relies on postal services as an input for transporting and delivering letters (bills, invoices, statements issued by the public or the private sectors) and physical goods (parcels, packages, usually shipped by the private sector).

Countries have adopted different regulatory approaches and policies to ensure viable competition in their postal sector. In rare cases (notably in New Zealand) full unrestricted competition has been introduced in all segments of the market with the aim to maximize the benefits of competition in the market.[8] New Zealand embraced a light-handed approach to regulation and let market forces set the final rules-of-the-game, subject to antitrust laws and enforcement of competition to prevent anticompetitive practices of dominant firms. In the majority of cases including Australia, Canada, the United Kingdom, and the United States policymakers preserved monopoly status for their incumbent postal operators for specifically defined services in order to fulfill their universal service mandate. In these cases a different regulatory approach has prevailed based on the need for oversight of rates and services and for safeguards against cross subsidies.

Paradoxically, even in developed countries that have introduced full liberalization, the historical postal operator still maintains market shares above 90 percent; either because of regulatory barriers to entry (in the form of excessive license conditions, for example, Sweden)[9] or what can be seen as the natural monopoly dimension of postal services (New Zealand).[10] Some countries have established a strong regulator in charge of implementing an aggressive liberalization strategy, yet the historical operator maintains a strong dominant position as well (United Kingdom).

The European Commission's Approach to Phased Liberalization

The EU has followed a systematic and consensus-building approach to reform the postal internal market. In the early 1990s it began by defining a regulatory framework that according to Mr. Frits Bolkestein, the European Commissioner in charge of the Internal Market, would *"…give users the benefit of competition while maintaining the availability of affordable services to all."* A key issue tackled by the 1997 and 2002 postal directives was to introduce a distinction between universal and nonuniversal services. Nonuniversal services cannot be reserved and are thus open to competition. For universal services the directives set out a set of maximum reserved areas (Table 1). The EU plans for full liberalization of the postal market in 2009 although this is unlikely to be confirmed before 2006.

The Directives also established minimum requirements for universal service which include all postal items to 2Kg, domestic parcels to 10Kg and incoming international parcels to 20Kg. It goes on to specify collections and deliveries must be carried out five days per week (Monday to

Table 1. EU universal service maximum reserved areas

	Weight Limit	Price Limit
1998-2002	350 g	5 times tariff
2003-2005	150 g	3 times tariff
2006-2008	50 g	2.5 times tariff

Friday) and has targets for routing times of cross border mail (85 percent J+3, 97 percent J+5). Member states have the freedom to work within these requirements (some member countries have collections every day of the week and six deliveries per week) and can establish their own regulations concerning network access, complaints and redress, for example.

The phased approach to liberalization chosen by the EU, together with a sector wide consultative process, and constant monitoring and evaluation of liberalization impact is relevant to developing countries. Given the heightened political and social resistance to an outright and immediate liberalization of the sector—even though it makes sense economically—the phased approached could be perceived as a pragmatic sector reform scenario for developing countries. Efforts to analyze the current market situation (supply, demand, use of technologies, contribution to the economy, and spillover effects, etc.) will provide a baseline against which governments can assess progress in reform implementation and regulatory effectiveness, and define the next stages of liberalization.

Lessons from the Telecommunications Sector: Is a Reference Paper on Regulatory Principles Required?

Market-oriented regulatory reform in the telecommunications sector offers many references for postal regulation. Over the years, regulatory experience has grown in areas like licensing of competitive service providers, mandatory interconnection rules, price cap regulation, targeted universal service funds and mechanisms, and privatization. This experience was distilled into an international trade instrument, the Reference Paper (RP) on regulatory principles.

The RP consists of a negotiated set of common guidelines for a pro-competitive regulatory framework that Members party to the General Agreement on Trade in Services (GATS) have attached to their schedules as additional binding commitments in the context of the BTA concluded in 1997.[11] The RP is celebrated as a major accomplishment of the Basic Telecommunications Agreement. It is the first international instrument that compiles guidelines for a global regulatory framework to guarantee that trade liberalization is not impaired by domestic regulatory measures. This harmonized set of regulations deals with six regulatory principles including competitive safeguards, interconnection, universal service, licensing, allocation and use of scarce resources, and the creation of an independent regulator.

Many proponents of the RP's approach have advocated the importance of adopting a similar approach in other "network industries," especially those that are prone to regulatory barriers. In this context, specific proposals to adopt a similar approach to postal and courier services have been tabled in the current round of GATS negotiations (Box 1).[12]

The argument is that, given the gradual opening of the sector to competition and the ongoing incremental reduction of "reserved" services in many countries, regulatory authorities are likely to face issues that are similar to those encoun-

Box 1. Chile

Negotiated during the Uruguay Round of multilateral trade negotiations, the GATS is the first multilateral framework for the global liberalization of trade in services. The GATS rules and disciplines extend to all services except those provided in the exercise of government authority. Despite the prevalence of government ownership of postal services in the overwhelming majority of countries, GATS ambit extends to postal services which, in most cases, are provided on a commercial basis and/or in competition with private suppliers. Postal services liberalization at the international level has been mainly driven by large private sector competitors in the postal sector. At the end of the Uruguay round, only a few WTO members undertook commitments in the postal/courier sector. When looking at these commitments, it seems that members were concerned about ensuring their prevalent monopoly situation and preserving postal universal service. Since then, progress has been made towards the continuing liberalization of the postal/courier sector. With the ongoing round of trade negotiations, deeper liberalization is expected in the postal sector, supported by specific offers and commitments, and possibly even a postal RP.

tered in the liberalization of the telecommunications sector.

The issue of postal universal service dominates discussions on encouraging competition, creating a level-playing-field, and acknowledging customers' interests. In this regard, the most relevant aspects of the telecommunications RP are those related to universal service and general competitive safeguards. Under the RP, regulations pertaining to universal service are not *per se* prohibited. However, to be compatible with an open competitive environment, USOs have to satisfy four conditions: they must be transparent, nondiscriminatory, competitively neutral, and not more burdensome than necessary for the kind of universal service defined by the member. Application of these principles will have far-reaching implications in revisiting the scope of postal universal service, and reserved and nonreserved areas in many countries. Such an approach, if applied to the postal sector, can go far in reconciling universal service objectives with the workings of competitive markets.

Another interesting aspect of the RP is its commitment to adopt general competitive safeguards—specifically those curtailing cross-subsidization to ensure an undistorted competitive environment. Disciplines on public availability of licensing criteria are also relevant in the context of liberalization of the postal sector as licensing can become a regulatory tool to erect barriers to market entry. The RP's disciplines on independent regulators are particularly relevant in the postal sector as many countries still preserve the ties between the operator and the regulator (as will be seen later in greater detail). Finally, it is important to assess the implications of cost-based principles (as those related to interconnection in the RP) on terminal dues and tariff setting practices. The move toward a postal RP is potentially controversial and calls for a deeper analysis of the tensions between the rules and practice of the Universal Postal Union and those of the GATS.[13]

From Policy to Implementation

In addition to facing the traditional issues of regulatory reform (those pertaining to institutional design, effective regulatory processes, and transparent regulatory procedures), developing countries need to tackle sector specific regulatory issues in order to find innovative ways to encourage liberalization and competition in the sector (under extreme market limitations and fiscal constraints) while preserving the goal of a sustainable, market friendly universal service policy. Several recommendations are given below to help developing countries in their design of a sound postal regulatory framework.

Institutional Requirement: Regulatory Governance and Independence

Establishing a regulatory framework for the postal sector requires both substantive rules pertaining to universal service, licensing, pricing, and design of regulatory institutions. The role of a regulator as a referee in enforcing the rules between market players is crucial for a successful competitive market. For many developing countries poorly planned regulatory reform will lead to negative outcomes. Failure to adopt effective frameworks that foster competition may "scare-away" potential players.

The institutional design of the regulator impacts its relationship with the policymaker, its accountability, and its autonomy. To avoid potential conflicts of interest, the postal regulator should be independent of the operator and (preferably) of the policymakers. Yet in a fiscally constrained environment, a stand-alone postal regulatory body might not be warranted: postal regulation could be located within the telecommunication regulatory institution, or in a multisectoral regulatory body, as several support functions can then be shared to reduce overhead costs. Another argument in favor of placing postal regulation within an existing regulatory institution is that it might accelerate the learning curve of the postal regulation team through knowledge transfer from colleagues working on other sectors. France, Mali, and Senegal have recently opted for this choice.

Improving Regulatory Capacity

Human resource constraints are a major handicap for developing countries to establish and implement effective regulatory frameworks. Regulating the economic behavior of market players requires adequate economic, financial, technical, and legal capacity. Without such capacities regulators do not have the tools to understand the market, analyze cost data, or measure the operators' performance.

Adjusting the USO

Expertise in the market is particularly important when adjusting USOs to reflect market capacity and citizen demands. There is room for adjustment on the extent and form of the postal presence (franchising the postal network), as well as on the quality of service (frequency of delivery in rural and remote areas, delivering time adjusted from D+1 to D+5 for instance; place of delivery, including post office boxes vs. home deliveries) and tariffs (cost-based tariffs reflecting the additional cost to deliver in remote areas).[14] The impact of those adjustments to the USO should be assessed financially by the regulator so as to monitor the subsidy scheme aimed at supporting the USP. In this regard, the regulator should also encourage the USP to set-up a cost accounting

system compliant with international standards. Cost information provided by a reliable cost accounting system would help to reduce the debate around the reliability of USO-related information provided by the USP.

Establishing Transparent and Accountable Regulatory Processes

Efficient and effective regulatory processes are needed to reach the benefits anticipated from the reform exercise. Accountability of the regulator is an important guarantee for existing operators and potential entrants. Investors need institutional reassurance that the regulator will not be captured by dominant operators. A process of appeal of regulatory decisions to jurisdictional or administrative bodies (depending on each country's institutional setting) may therefore be warranted.

Transparency is also needed to increase the legitimacy of the regulatory exercise. It increases the pressure on the regulator to ensure openness, fairness, and objectivity of the regulatory decisions. Transparency of the decision-making process can be guaranteed with the mandatory publication of regulatory decisions, as well as increasing public participation in important policy decisions.

A postal regulatory system that is not optimized can hinder sector development. In China, some observers estimate that the express mail segment could triple in value in view of the tremendous business opportunities in the country. Yet the regulatory framework is currently a disincentive for private sector investment as there is no visibility in terms of government intentions to regulate the sector (regulation is still implemented by the public operator), liberalize the sector (or not), nor is there transparency on the licensing scheme that the authorities may develop.

Conclusion

An effective policy and regulatory framework is key for postal sector growth. Few developing and transition countries have taken the trouble of assessing their postal sector, its performance and potential, as well as the policies and regulations that may foster its development. Too often, ad hoc policy or regulatory measures are taken to deal with specific issues, such as express and courier competition, office closures, postal deficits or diversification attempts. These measures, taken outside an overall postal sector strategy, rarely yield sustainable progress. The body of sector reform experience is slowly growing, and the European Union, as well as several other countries, offer interesting approaches to sector reform which should help policymakers in developing and transition countries. No universal blueprints are available, however, and reform needs to be tailored to the specific circumstances of each country. Further data collection, analysis, and research would be needed to take stock of reform experience to date and articulate best practices relevant to developing and transition countries.

Notes

[1] "Reforming Infrastructure: Privatization, Regulation and Competition, A World Bank Policy Research Report, 2004.

[2] This scheme is common in the telecommunication sector, and is also stipulated by the 1997 European postal directive; it has not yet been successfully attempted in the postal sector.

[3] Direct subsidies from the state budget, approved annually by the government, or some derogatory tax regimes.

[4] The cost of USOs is seldom accurately assessed due to the absence of cost accounting in most public postal operators. Cost accounting systems are required, especially in the cases where the post office provides both mail-parcel services, and financial services throughout the network. However disagreement remains on the best methodology to use (the European Commission has favored the net avoided cost method, while other stakeholders prefer the entry price method).

[5] For instance in China, taxing the private postal operators present in the air express market (valued at $1.5 billion) would raise less than one-tenth of the resources needed to support the cost of the universal service. The European Commission estimated the average cost of the USO at about 5 percent of revenues in industrialized countries (likely to be relatively superior in developing countries). Considering that China Post posted $6.8 billion of revenues in 2002, we would have an theoretical estimated cost of USO at $340 million (most likely in the low end of the actual cost). Taxing at, say, 2 percent the express mail private operators would raise about $30 million, one-tenth of the cost of USO.

[6] Source: Universal Postal Union - http://www.upu.int/statistics/en/index.shtml

[7] There is one post office for about 3,000 inhabitants in France, compared to one for 102,000 in Mali and one for 187,000 in the Democratic Republic of Congo. Countries with GDP per capita under $1,000 have on average a post office for each 4,700 square kilometers of territory compared to one office per 458 square kilometers for countries with GDP per capita above $5,000.

[8] Volner, Brickman, Field, Postal reform: A Comparative Analysis and Critique of Regulatory Models – (Rutgers Conference on Postal and Delivery Economics, Cork, Ireland) 2004.

[9] Posten AB's license features: every week-day delivery (and at least five times a week), at least one clearance and one delivery per week day, high delivery standards (85 percent overnight, 97 percent within three week-days), uniform prices for single piece mail with a price cap limiting price increases to the rate of inflation. In "Regulatory Challenges in the Liberalized Swedish Postal Market," Jonsson (Conference on Postal and Delivery Economics, Cork, Ireland, June 2004).

[10] In New Zealand, an individual or company is able to register as a postal operator with the Ministry of Economic Development; a one-off application fee of NZD 95 ($62) is payable. In "The Liberalization of Postal Services in New Zealand," Harford (Conference on Postal and Delivery Economics, Cork, Ireland, June 2004).

[11] The BTA was negotiated under the World Trade Organization (WTO) and is appended to the GATS as its fourth Protocol. It contains specific market access and national treatment commitments in basic telecommunications services as well as a set of regulatory principles. This agreement covers basic telecommunications services whether local, long-distance or international. It includes services for public and nonpublic use provided on an infrastructure basis as well as through resale. It covers telecommunication services provided by any means of technology including cable, wireless, and satellites.

[12] See European Union's proposal: http://europa.eu.int/comm/internal_market/post/doc/activities/job_en.pdf.

[13] Study of TMC Asser Institute, The Study of the Relationship Between the Constitution, Rules and Practice of the Universal Postal Union, The WTO Rules and the European Community Law, The Hague , 30 June 2004 (Unpublished Manuscript).

[14] Regarding the nonuniform tariffs, numerous hurdles/technicalities of accounting systems, inconvenience for the clients, explain that such cases are rare.

Isabelle Segni
Juam Ianni

Chapter 6
Case Studies on Postal Sector Reform

The World Bank has been involved in postal reform projects throughout the world. This paper looks at three of those projects in three very different countries; Morocco, Tanzania, and Trinidad and Tobago. The case studies review the reform process undertaken in each of the three and analyses the impact of the reforms with respect to performance, financial viability, and sustainability.

In each of the three case studies, four reform elements were key: (a) commercialization of the operator; (b) improved operational performance of the operator; (c) improved financial performance of the operator; and (d) legal and regulatory reform of the sector, including progressive liberalization.

All three countries have become more commercially focused and all have performance contracts with government in the areas of quality of service, customer satisfaction and financial performance. This has led to improvements in each of those areas although there appears to be a trade-off between quality improvement and financial performance. Trinidad and Tobago has made the greatest quality improvements extending network coverage from 50 percent to 96 percent of the population. However, they have failed to become financially viable during the five years of reform despite growing volume by over 150 percent. Tanzania has managed to break-even in an environment where mail volumes are less than one per capita per annum, by introducing prudent performance and service objectives. Morocco has consistently made profits since its reform, in part due to its more conservative operational targets than in Trinidad and Tobago. However, each can be termed a success because they have all transformed their business from one with low customer perception to one providing reliable and secure products and services.

Legal and regulatory reform has occurred to some degree in all three countries but market liberalization has not progressed as expected. Only Tanzania has reduced its reserved area to 500g while Morocco maintains a 1,000g limit, and Trinidad and Tobago a 2,000g limit. This has resulted in limited domestic competition in each country. Tanzania also remains the only country to fully separate the regulatory function from government, although the separation is planned in the next phase of reform in Trinidad and Tobago as well as in Morocco, albeit with no change to the reserved area.

The three case studies provide evidence of the benefits of undertaking postal reform, but also identify some of the trade-offs that must be made between financial viability and universal service coverage in a developing country context.

Morocco

Successful Public Postal Operator Restructuring but Delayed Sector Reform

Pre-reform Postal Situation

Market and Regulatory Environment

Mail and domestic express services were the legal reserve of the monopoly postal operator "*Office nationale des postes et telecommunications*" (ONPT) which also had some regulatory responsibilities. The ministry responsible for posts was also in charge of the policymaking and some regulatory functions. Only the international express segment was open to competition with DHL being a major player in the market. In absence of an appropriate regulatory framework, international express carriers paid a fee to the public postal operator, as a contribution to the universal service cost.

Although the postal sector represents a small part of the economy (0.2 percent to 0.3 percent of GDP), its social importance is significant if we take into account the universal postal services and the postal financial services through which ONPT provided basic financial services to many low- to middle-income households.

Public Operator Status and Performance

As an *office nationale*, the incumbent was institutionally distinct from the administration, with an autonomous budget, but managed by processes similar to those of the central administration. Approximately 70 percent of ONPT's revenues came from mail and parcels and the remainder from postal financial services.[1] The postal revenues of ONPT grew by 5 percent from 1995 to 1998, although the average number of mail items per capita remained under 8 and has stagnated over the last years. The number of permanent post offices also grew by 5 percent over the same period to 1,469 offices in 1998, and while all offices accept financial transactions, fewer than half offer a full-range of postal services.

Reform Impetus and Strategy

Reform Environment

In 1988 the Government of Morocco split ONPT into two government-owned companies, Itissalat Al Maghrib (IAM, the public telecom operator) and Barid Al Maghrib (BAM, the public postal operator). This institutional restructuring was mainly driven by the telecommunications sector reform agenda, which aimed at a progressive liberalization and privatization of the incumbent. For the postal sector, a more cautious approach was taken: BAM was created under public law as a state-owned "*établissement public à caractère industriel et commerciall*" (EPIC),[2] and the government maintained a reserved area up to 1kg for letters.

In 2001, the government adopted a postal sector strategy, which was included in the sector policy letter for the information infrastructure development. This inclusion signaled the government's view of potential synergies between the postal sector and other elements of the information infrastructure (for example, telecommunications and the Internet).

Postal Reform Strategy

The sector policy letter noted three general objectives for the postal sector: (a) implementing progressive sector liberalization, (b) increasing BAM's competitiveness through commercialization and status change (if necessary),[3] and (c) developing postal financial services to improve access to finance and channel postal savings to the private sector.

The progressive liberalization, a key component of the reform agenda, has not yet been implemented, but BAM's competitiveness has made satisfactory progress, as detailed below.

Regulatory Reform

While the telecommunications regulatory body, *Agence nationale de régulation des telecommunications* (ANRT) was created, the ministry in charge of the postal sector continues to share the regulatory function with the incumbent. BAM still collects the license fee levied on international express operators. However a postal law is being drafted that provides for ANRT to expand its mission to include postal regulation.

Three years after the adoption of the sector policy, further liberalization of the postal sector has not been realized.

Commercialization of the Public Operator and Performance Agreement

The Prime Minister presides over BAM's board of directors, which is comprised of representatives of eight ministries. Management and fiduciary autonomy and responsibility are relatively limited, for instance, procurement of contracts above a certain threshold are subject to *a priori* control from the Ministry of Finance.

BAM has defined and implemented its corporate objectives through a thorough reorganization, including territorial decentralization, and managers' accountability on performance (based on agreed objectives and means). BAM hired (with internal financing) a consulting firm to work, together with BAM, on the planning and implementation of the reorganization.

BAM has exceeded expectations in its strategic turnaround. Since its separation from telecommunications it has been consistently profitable, avoiding burdening the government with subsidies (a pre-reform prediction). Through training and capacity building programs most staff have gained exposure to the new market-oriented culture and management tools. Several senior managers have been hired from the private sector. Business agreements with private partners have developed, and greater outsourcing to the private sector is underway to optimize operational and financial performance.

One of the major instruments of the renewed dialogue between the operator and the government has been the performance contract. Although the contract does not carry a formal incentive system (such as rewards if BAM meets its objectives [and penalties if it does not]), it offers the opportunity for the stakeholders to analyze the government's development objectives and to define the conditions under which the public operator can meet them. There are four categories of performance indicators that have been monitored for 2002 to 2004:

- *Operational indicators*: creation of post offices and distribution routes; number of letter items handled; deposits amounts and number of accounts for CCP and CEN; number and amounts of money orders; delivery time (D+2); number of claims for letters and money orders;

- *Investment indicators*: quantitative and qualitative objectives of investment are specified;
- *Financial indicators*: 11 indicators reflecting economic, financial, treasury productivity performance;
- *Human resource indicators*: structure of staff and training budget are specified and monitored on the basis of quantitative targets.

Progressive upgrade of information systems allows BAM to more efficiently collect and aggregate operational and financial data generated throughout the network.

Sequencing

The postal sector reform began as a subset of the telecommunication reform. Although the postal sector policy was developed well into the telecommunications reform, it already needs to be updated. In 2004, the government initiated two studies, one on universal service,[4] and the other on the development of postal financial services. The government will use the results to finalize a new postal law that emphasizes further liberalization, a better regulatory framework, and the transformation of BAM into a joint-stock company.

World Bank Participation

The World Bank's support to Morocco's postal sector reform has been limited to technical assistance support.[5] However regular policy dialogue with the stakeholders has yielded ideas and principles drawn from international best practice. Currently the World Bank is encouraging the government to update the sector policy and accelerate the reform of the legal and regulatory framework.

Reform Results

Measuring Progress

While the overall reform framework was balanced the objectives and components appeared to be too ambitious given the government's limited capacity to implement the reforms.

The performance contract for 2002 to2004 provides a good framework for evaluating BAM's performance since 1998. As of 2002, BAM has successfully met most of its objectives, and exceeded them in terms of financial performance.

Sector-wise, the reform objectives have not been met, whether in terms of further liberalization, or in terms of regulation. Lack of market intelligence makes it difficult to assess sector growth or customer satisfaction. Hence the analysis below concentrates mostly on BAM's results.

Volumes and Financial Performance

While mail volume has only slightly increased (Chart 1),[6] BAM's financial turnover (driven by postal financial services and other sources of revenues), has increased by more than 45 percent over the 1998 to 2003 period (to 1,137 million dirham [MnsDH] in 2003), while net revenues have tripled from 55 MnsDH in 1998, to 153 MnsDH in 2001. Domestic express activities have grown the most significantly over this period, reaching 16.5 percent in 2002, while postal financial services deposits have increased by 11 percent in 2003. Net revenue in 2002 and 2003 decreased as BAM funded its retrenchment plan (about 1,000 staff, Chart 2) which represent a short-term cost (on incentive departure packages) with an expected medium-term return (reduced staff costs, improved efficiency).[7] In 2003 this

translated into a 24 percent rise in productivity (increase in value added per employee).[8]

BAM is implementing a cost accounting system to allow better identification of cost and profit centers, and to provide more reliable information relative to the cost of universal service and pricing.

Coverage

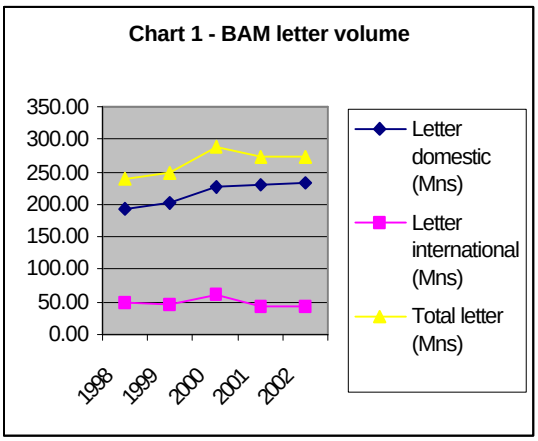
With about 1,500 post offices, BAM has the most extensive network in the country, although the ratio of post office per inhabitant remains low by regional standards (1 for 18,000 in Morocco, versus 1 for 9,000 in Algeria, and 1 for 8,000 in Tunisia in 2002). There has been a slight improvement in urban and rural areas.[9] Efforts to increase access are being considered taking into account BAM's financial sustainability. Solutions such as franchising are being examined.

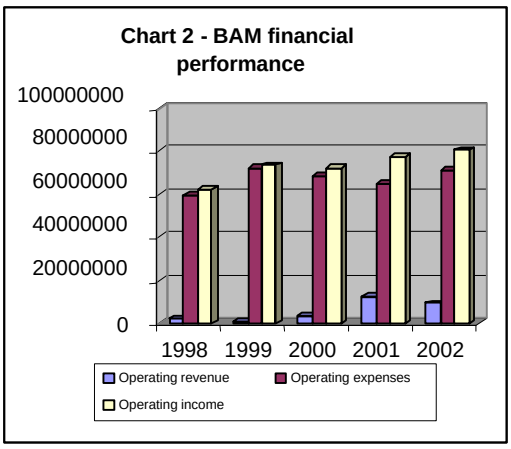
Recently BAM implemented a geographic information system (GIS) to provide a better picture of the adequacy of coverage between population repartition and postal presence.

Quality and Customer Satisfaction

Several investments (marketing and capacity building efforts) were undertaken to improve quality of service. Customers are enjoying improved services—counter automatization (430 in 2002, representing 95 percent of counter turnover), upgrading applications and information systems, and the creation of a call center. Customer lines in post offices are closely monitored, resulting in organizational changes to optimize service. At this stage, most of the improvement in quality has benefited business clients, as well as customers of postal financial services. The delivery time of mail remains lower than expected, with less than 60 percent of mail delivered on D+2 (2002 statistic).

With better service the number of claims has dropped dramatically. Improving customer relations is now a priority for BAM, though a systematic customer satisfaction survey has yet to be initiated.





Investment and Innovation

BAM has initiated a program to upgrade and innovate commercially. It started a joint-venture with Chronopost for international express mail, it launched a new domestic express service, and it introduced a pilot hybrid mail center in 2003. Electronic payments are also increasing through the deployment of ATMs. BAM has acquired a GIS to facilitate informed strategic decisions relative to its postal network. It developed a national address database that is the starting point to develop direct marketing activity. BAM is currently investing in a large hub to support logistics of its e-commerce activities (storage, ordering, preparation, stock management, shipping and delivery).

Overall Market Development

Today there is not a government entity that is capable of regulating the market, or of providing comprehensive data on the market—and the Ministry has limited capacity and resources to perform these tasks. There are five international express carriers identified in the market, excluding the recently created Chronopost-EMS joint-venture, demonstrating that the Moroccan international express segment is attractive. License fees are collected by BAM (which has the right to audit operational and financial accounts of its competitors). Given the lack of detailed accounting information it is not clear whether BAM uses revenues from reserved areas to cross subsidize those in the competitive domain. For the remainder of the postal market, it is impossible to assess volumes, values, market shares, output, performance, or trends.

Regarding postal financial services, the Treasury Department is currently analyzing possible development strategies, which could mean retaining the *status quo*, or creating a new entity (possibly a subsidiary) with more or less extended capacities in financial, banking or nonbanking services.

What Went Right, Areas for Improvement

What Went Right

The most visible success is the commercial orientation and financial sustainability of BAM, illustrated by the self funded modernization and the increase in volumes realized through those investments. Prior to BAM's separation from Itissalat, few observers would have anticipated such a success. This can be partially attributed to the vision of its managing director and the commitment of the upper management team to reform the organization, and also to the existing market conditions. Morocco has a thriving business environment that provides room for market expansion through fulfilling unmet demand for postal services, assuming that BAM can provide an acceptable level of quality of service.

Areas for Improvement

Morocco is facing the traditional " universal service dilemma": how to increase access without having a negative impact on BAM's financial viability. The government, through the performance contract, is encouraging BAM to increase access through physical presence (the contract monitors the number of new post offices), instead of through alternative access options (franchise or other private-public partnership). This will lead to increased fixed-costs for BAM with marginal additional revenues realized.

With a reserved area of 1,000g the government has not achieved its objective of market liberal-

ization although the monopoly is not enforced and BAM faces *de facto* competition. BAM has announced that it is ready to open the sector to competition, though the policymaker is hesitant to formally liberalize the market. The World Bank supports the preparation of the draft law that will propose lowering the scope of the reserved area, and provide for an adequate regulatory framework and universal service funding mechanism.

The government has been slow to address the conditions to develop postal financial services—an important objective in the postal sector policy. The outcome of the ongoing study might call for a substantial institutional modification (creation of a subsidiary, new conditions of remuneration for CCP, and savings deposits by the Treasury and the *Caisse des depots et de gestion*). This mirrors the delay experienced in preparing a new draft law. The slow pace is a handicap for BAM as it is ready to change its status to "limited company" to have greater commercial autonomy.

Sustainability

Morocco's postal reform has a promising future, provided the government can quickly update its postal legal and regulatory framework, and modify BAM's status. The government and BAM should now build for this future by preparing the new performance contract (2005 to 2007).

Tanzania

Solid Performance for a Low-income Country, but Uncertain Sustainability

Pre-reform Postal Situation

Market and Regulatory Environment

Tanzania's postal market is limited by low GDP per capita (610, PPP 2001), minimal economic and commercial activity, and weak information and transportation infrastructures. Over 80 percent of mail flows involves business-to-business or business-to-customer communication with the largest demand from utilities (water, telecommunications, electricity) and banks. Since less than 10 percent of the population has access to grid-based electricity and 1.7 percent to fixed or mobile phones,[10] Tanzania's low annual per capita mail volume of 0.73 items is not surprising.[11] Prior to reform, several unlicensed private operators functioned in an unregulated market even though a reserved area was stipulated in the existing postal and telecommunications law. The majority of these private providers are classified as "indirect" communication services such as freight transporters, bus companies, or individual travelers.

Public Operator Status and Performance

The pre-reform public operator showed little or no commercial orientation and offered a limited product line and suffered from a low public image mainly due to unreliable service. For the four years preceding the commercialization of the public operator in 1997, mail volumes fell by an average 22 percent per annum; and parcel traffic decreased by almost 50 percent from 1992 to 1993. Performance was not monitored in areas such as quality of service, customer satisfaction, volumes, or revenues. Prior to reform, the public operator was organizationally and financially dependent on the public telecommunications operator, and functioned as a dependent agency within the Tanzanian Post and Telecommunications Corporation (TPTC). The Post Office Savings Bank functioned as a separate entity within the Ministry of Finance but provided access through the postal retail network.

Reform Impetus and Strategy

Reform Environment

During the late 1980's and early 1990's, the government, with the support of the World Bank Group, initiated a program to restructure its public services to increase efficiency and lower costs. For the communications sector a critical first step in this reform process was to separate the postal and telecommunications functions (as is common in other African countries). This implied that subsidies from telecommunications would end, meaning that the public postal operator would need to be financially viable.

Postal Reform Strategy

The Tanzanian postal reform strategy was based on a highly structured, three-stage approach:

- To establish a strong regulatory environment and an autonomous public operator;
- To develop a contractual (performance) agreement establishing stakeholder accountability; and

- To commercialize the public operator to succeed in a competitive and expanded market.

Regulatory Reform

In 1993, the government initiated this process by passing a series of new communications and postal laws to establish a sound legal and regulatory framework for the sector.[12] These laws separated TPTC into autonomous entities for postal, Tanzania Posts Corporation (TPC), and telecommunications, Tanzanian Telecommunications Company Ltd. (TTCL), and provided TPC with commercial flexibility including the right to incorporate subsidiaries and enter into commercial partnerships.

The new postal law defined TPC's universal service obligation (all letters, packets, and parcels up to 10 kilograms) and associated privileges (a reserved area up to 500 grams) and established the "rules of the game" for competitive portions of the postal market by establishing a coherent licensing scheme. Finally, a new regulatory framework was established to clearly demarcate the functions of each postal stakeholder:

- *Ministry of Communications and Transport* sets overall policy for the postal sector
- *Tanzanian Communications Commission* (TCC) administers licensing and tariff setting for reserved services;
- *Presidential Parastatal Sector Reform Commission (PPSRC)* approves TPC borrowing, represents consumers, and determines future restructuring or divestiture of public entities (such as TPC); and
- *TPC*, under a license granted by the TCC, provides universal services at a level established in a performance agreement established with the government.

Commercializing the Public Operator

Performance Agreement

The regulatory framework defined the rules of the game and the responsibilities of each of the major players. However the government determined that it would be necessary to measure the success of these policy decisions and to ensure that the public operators' level of accountability was commensurate with its newly granted management autonomy. Therefore, a performance contract was signed by TPC, PSRC, and TCC specifying five performance targets:

- *Quality of service*, a negotiated percentage of inter and intratown letters to be delivered within a specified number of days;
- *Security*, mail theft be kept below a defined level;
- *Profitability*, TPC must reach an established level of profit before taxes;
- *Growth*, expressed as a percentage of increase in mail volume annually; and
- *Customer satisfaction*, expressed as keeping customer complaints below a percentage of mail volume.

Quantitative performance indicators were developed for each area and measured by an independent third-party. Furthermore, financial bonuses for exceeding, and penalties for missing the targets were specified for the board of directors and TPC management. The first three-year performance contract was signed in 1997 and has been renewed once.

Building TPC's Capacity

The government determined that to fulfill the requirements of the performance contract, compete, and be financially sustainable, TPC needed sufficient commercial capacity. A strategic plan was developed to establish corporate objectives to: improve the quality of service, increase employee productivity, support innovation of products and services, and incorporate new technologies. Operating costs were reduced by adjusting the existing network (mainly through franchising) and by staff reductions (nearly 45 percent, mainly through attrition).[13] The most important factor in commercializing TPC was its separation into three distinct business units: mail, counters, and express mail service (EMS). Each unit received adequate operational and financial autonomy to focus on its customers and core products, thereby decentralizing authority and increasing management control. Significant capacity building was also undertaken in each unit: mail operations were upgraded in the main sorting center in Dar es Salaam, counter operations were automated with the support of the East African Development Bank, and EMS incorporated new trace and track systems.

Reform Process

The government not only undertook a well sequenced postal reform (regulatory reform, accountability, and commercialization) it also allowed time to resolve the more challenging issues in the process. A good example is the one year "transition period" to split posts and telecommunications functions, to allow the legal separation of existing balance sheets, determine how to fund pension commitments, and how to allocate TPTC's assets and liabilities between the two entities.

World Bank Participation

The World Bank's support for postal reform in Tanzania was one of its first projects in the sector and began as part of a larger telecommunications project. This support was an important factor in obtaining the technical expertise needed to develop effective market regulation and establish an organizationally and financially autonomous TPC. It was valuable in resolving highly technical issues such as the separation of posts and telecommunications and the design of a commercial accounting system for TPC. The targeted, if limited, investment in strengthening management information systems also helped TPC to monitor and control its operations and finances.[14] The Bank's participation was effective in supplementing the government's basic strategy and vision for postal reform. The momentum of reform has been maintained by postal stakeholders in Tanzania for many years following completion of the Bank's support.

Reform Results

Measuring Progress

Tanzanian reforms have focused on the public incumbent operator: trying to ensure it is financially viable and can meet its universal service obligations. Consequently, the development of the supply-side of the postal market has consisted mainly of a few entrants into profitable market segments (for example, international courier and some domestic interurban routes). This increased the choice for particular categories of consumers but has not resulted in more choice or quality of service for most consumers in rural areas. Demand served by the incumbent has failed to increase substantially over the period since reform—it has risen and fallen from year-to-year

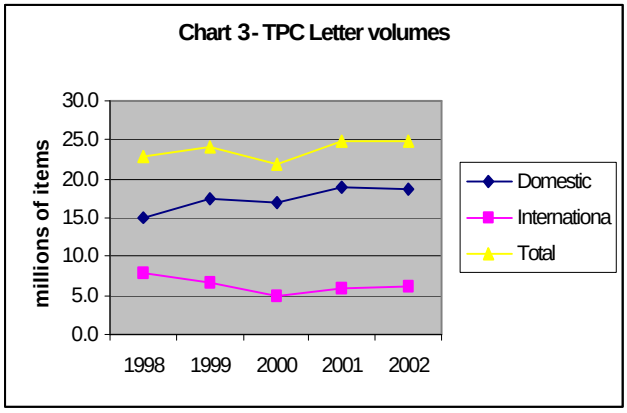
but remained at around the same level over the period. TPC's loss of market share to competitors suggests that aggregate demand has increased, although no data on volumes is available from competitors. Consequently, the increased demand that arises from the reforms (such as from permitting new entry) does not necessarily accrue to the incumbent. As a result, TPC is looking to expand its services beyond its traditional letters market and into other forms of mail (like advertising mail) and other services (such as financial services). If this succeeds it would be partly attributable to the increased commercial focus instilled in TPC as a result of the reforms.

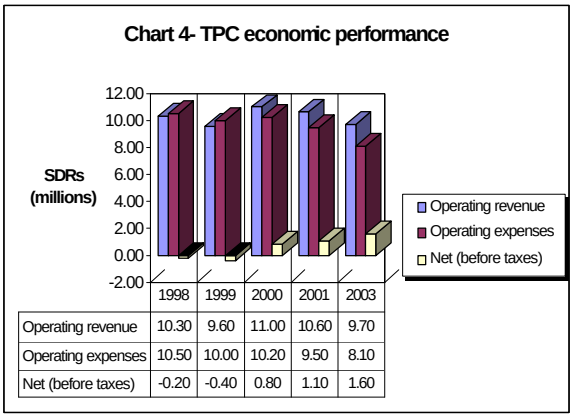
The requirements of TPC's license and performance contract provide a good framework for evaluating the results of postal reform starting in 1998.

Volumes and Financial Performance

Chart 3 shows growth of letter class volume for 1998 to 2002, but it does not appear that reform has generated large increases in volumes. However, domestic volumes, which are more responsive to operational improvements, grew by nearly 20 percent from 1998 to 2002, and overall letter-volume by approximately 8 percent.[15] Most postal administrations in the world, including those in industrialized nations, have experienced flat or declining volumes for letter class mail during the same period. Productivity spiked in 1999 (32 percent increase in items per employee; 17 percent increase revenue/employee) due to reductions in staff and increased mail volumes; however, productivity has remained fairly unchanged in ensuing years.

During and following the reform, the policy decisions make it clear that TPC must be financially self-sustaining and deliver an acceptable level of universal service without subsidy. A rising cost per item handled (nearly $0.50 per item in 2001) made these goals challenging. TPC has succeeded by controlling costs (Chart 4)[16] but at the price of reducing coverage and increasing tariffs (by nearly 43 percent in real terms).[17] TPC attempted to increase profit by aggressively marketing its new products; but revenues, like volumes, were relatively flat from 1998 to 2002.





	1998	1999	2000	2001	2003
Operating revenue	10.30	9.60	11.00	10.60	9.70
Operating expenses	10.50	10.00	10.20	9.50	8.10
Net (before taxes)	-0.20	-0.40	0.80	1.10	1.60

Coverage (Outlets and Delivery)

Providing universal postal services is both challenging and costly in a country of 37 million people (70 percent of whom live in rural areas) dispersed over 947,000 sq. km., serviced by a poor transportation infrastructure, and with a grossly inadequate addressing system. Tanzania averages about 60,000 inhabitants per postal office, one of the highest ratios in the developing world. To contain costs the total number of post offices (TPC and franchised) was reduced from 500 in 1993, to 422 in 2002. Almost all mail is delivered at post offices, through private post office boxes or over the counter. However, the reduction in network reflects a closer approximation of access with demand, and there appears to be relatively uniform coverage throughout the country.

Quality of Service and Customer Satisfaction

Gathering data on quality of service is difficult due to the dispersed nature of Tanzania's postal network and the light volumes of mail carried. However, recent studies show that TPC is meeting the quality standards of the performance contract (Table 1).[18] As with quality of service, the measurement systems used for monitoring customer satisfaction do not produce detailed information. They are based primarily on monitoring the number of complaints submitted to the operator and regulator. While recent studies indicate this target is being met,[19] growing competition from private operators show there is still dissatisfaction with TPC's efficiency.

Innovation

Each of the three corporate areas have made significant efforts to research, develop, and market new products in order to generate extra revenue.

Table 1. Performance measure targets

Performance measurement	Targets for 2001
Area	***Target***
Mail intra-town	J+0 (98%)
Mail inter-town Zone A	J+1 (85%)
Mail inter-town Zone B	J+2 (88%)
Mail inter-town --District	J+5 (80%)

- *Mail*. Tariffs were based on the speed desired by the customer (economy or priority services) rather than on the content and size of the mail piece. TPC is also free to negotiate individual rates with large mailers and is developing an advertising mail business.
- *EMS*. In addition to the normal express mail services, new products such as EMS fax service and money-fax were introduced. An agreement recently was signed with DHL for delivery of international items in designated countries while TPC delivers domestic items for DHL.
- *Counters*. As part of its revenue-generating strategy, TPC's retail network sells other communications products including stationary, packaging material, photocopying, and fax services, and a few sites offer Internet access. Perhaps TPC's most successful new product area is that of financial services such as a "giro-banking" that allows institutions to pay salaries, pensions, and dividends to its employees and shareholders through the postal network. TPC also retains 30 percent of the shares in the Post Office Bank, which provides another source of revenue.

Overall Market Development

In Tanzania an original goal of the reform was to increase competition and grow the postal market. Private sector participation has slowly and steadily increased since reform was initiated. There are now two licensed international postal competitors (DHL and TNT) and 14 other licensed competitors who primarily use their own networks (e.g., bus operators) to transport mail. Competition is particularly keen in express mail and parcels due to their profitability; so far, no operator has applied for a license to deliver mail in the reserved area (under 500g). Above 500g, competitors enjoy 15 percent of the overall letter market and a significant portion of the express mail market.[20] Their higher prices, greater reliability, and same day service have created a quality niche above TPC's economy and priority services. At this time there is little threat from Internet services since less than 0.5 percent of the population are Internet users.[21] TPC increased private sector participation through franchising and commercial partnerships and by interconnecting with private transportation companies to arrange for delivery of mail in remote areas.

In summary, while the reform has created a modest growth in competition, private sector participation, and volumes it has not decreased the cost of providing basic postal services.

What Went Right, Areas for Improvement

What Went Right

- Tanzania's postal reform established a solid legislative and regulatory foundation for the sector with a clear division of responsibilities and transparent processes for postal regulation and performance. These reforms were properly sequenced and timed and the government ensured that sufficient resources were available to complete the reform agenda.
- TPC has commercialized its operations and finances and has developed a solid marketing strategy based on determining and meeting unmet demands in the postal market. Quality of service, security, and product diversity all significantly improved. TPC has continued to be self-sustaining and has significantly lowered the cost to the government of providing universal services. A self-sufficient postal operator is rare in countries at this economic level.

Areas for Improvement

- While regulatory and institutional reforms were implemented and the cost to the government of providing universal service was lowered, the wider sector reforms (such as decreasing the cost of basic postal services and significant market expansion) have not been achieved.
- Although the performance contract has provided a worthy yardstick for measuring progress, to date penalties have not been assessed in areas where targets have been missed. It is unlikely that such penalties will be levied except in severe cases of underperformance. The incentive mechanism embedded in the performance contract may not come into play if penalties are not levied.
- Despite successful reform, postal tariffs in Tanzania are high; the lowest postage rate (economy service, 20 grams or less) is the

same as the price of a loaf of bread, or 30 minutes Internet access. Recent studies estimate that the tariff for basic letter services could represent a cost between 3 and 9 percent of typical monthly expenditures.[22.] While pegging TPC's prices closely to cost has allowed it to maintain financial equilibrium, such frequent rate hikes may drive the cost of postage beyond the means of the average mailer, and may even be depressing mail volumes. Further analysis of price elasticity may be necessary to better appreciate impact on demand.

Sustainability

Without significant market growth, Tanzania may find it difficult to sustain the benefits achieved by its postal reform. Competition is growing and the relatively high prices needed to maintain TPC's financial viability may depress volume over time. Furthermore, the TPC's low level of profitability (recently 2.5 to 5 percent) does not provide sufficient excess capital for investment in future development. The government is considering four options to increase TPC's access to outside investment: enacting legislative changes that would allow TPC to borrow funds independently of the Ministry of Finance; separating commercial (EMS) from social (basic letter mail) services with the former services entering into partnerships with the private sector; converting TPC from a public corporation into a limited liability company (as was done with TTCL) which would open TPC to partial privatization; or completely privatizing TPC.[23] These strategies focus on private investment to further extend the benefits that have been achieved through Tanzania's postal reform.

Trinidad and Tobago

Improved Postal Services Through Management Contract, but Uncertain Financial Sustainability

Pre-reform Postal Situation

Market and Regulatory Environment

Prior to reform in 1999, the public postal operator in Trinidad and Tobago was caught in a "vicious circle" of poor financial performance, low investment, poor customer service, and decreasing mail volumes. The per capita mail volume stood at 12.6 pieces—low for an upper-middle-income developing country—and overall mail volumes dropped by 20 percent between 1995 and 1999.[24] Quality of service was poor with mail frequently taking seven to 10 days to be delivered, and universal service reached only 50 percent of households. It was estimated that perhaps no more than half the population had a positive response to Trinidad and Tobago Post Office and Postal Savings Bank, the public operator.

Public Operator Status and Performance

Financial performance was dismal; the post had lost money for years and revenues typically covered only two-thirds of costs. There was a great deal of unregulated competition for regular mail services, much based on "self-delivery" by utility companies. The existing postal law established the Post Office and Savings Bank as agency divisions of the Ministry of Public Utilities and Environment and the Ministry of Finance respectively. The public operator was responsible for a poorly defined universal service for basic mail, was not accountable for performance, had no marketing capacity, and ran its finances according to the government budget cycle. Private sector participation did not exist at any level within the public operator.

Reform Impetus and Strategy

Reform Environment

Prior to 1999, several reform programs had been implemented in Trinidad and Tobago to boost the economy and strengthen the country's financial system through a redefinition of the scope and size of the public sector and a wide-range of privatizations. More recently, the government developed a "2020 Vision" based on raising infrastructure services to world-class standards by 2020. For the postal sector this means bringing postal financial and operational performance to the levels of the most successful postal services in the industrialized world.

Postal Reform Strategy

In 1999 the government established a two-phased approach to modernize the postal industry with strong support from the wider postal stakeholder community. The first phase would restore public confidence in the public operator, build postal volumes and revenues, improve service, extend universal network coverage, and gradually reduce the levels of government support. Increased private sector participation in the public operator's management and operations was seen as the best method for achieving these goals.

In the second phase, a revised legislative and regulatory framework would be established to stimulate overall postal market development. During

this phase, the commercialized public operator would gradually be exposed to more competition, and strengthened through increased private sector participation through a long-term arrangement such as a concession or partial privatization.

Regulatory Reform

A delegated management arrangement (DMA) was identified as the vehicle for the first phase of the reform, namely to rehabilitate the public operator by introducing commercial discipline and innovation into its operations and management. In order to provide the legislative and regulatory framework needed to support a management contract, the Postal Act of 1999 was established to provide more management autonomy and commercial flexibility for the new public postal corporation, Trinidad and Tobago Post (TT Post); a reserved area was maintained for letters with the understanding that over time this would be subject to gradual liberalization.

Commercialization of the Public Operator and Performance Targets

The DMA, a five-year management contract, was awarded to New Zealand Post International Limited (now Transend Worldwide Limited) after a competitive bidding process. Transend was obligated to manage TT Post in line with international best practices that would be measured by annual quality of service and revenue targets; with payment of management fees tied to achieving targets. Independent third-party organizations would monitor, measure, and review the progress based on the following five performance indicators:

- Improved level of *customer satisfaction* among mailers;
- Expanded reach of *universal delivery* in Trinidad and Tobago;
- Met standards for *transit time* of mail from customer deposit to delivery;
- Growth in *revenue* from postal services; and
- Met *net income* target specified in the DMA contract.

Reform Process

The reform process began with the government's design for the broad strategies to rehabilitate the public operator and establish the groundwork for future market liberalization and increased private sector participation. The next task was to engage stakeholders (including major mailers, labor unions, consumer groups, and private postal operators) in building consensus for reform through a series of information sessions and workshops. There was a general consensus concerning the significant need for reform and the general strategies for achieving this transformation. The government's "reform champions" did an excellent job of explaining the goals of the reform at Universal Postal Union meetings and other international fora. This process helped to build interest among potential bidders interested in the management contract.

World Bank Participation

Support from the World Bank was sought to help conduct detailed postal market analysis, policy-setting, and long-range strategic planning activities. During the detailed DMA design and international bidding process; the Bank's extensive expertise in these areas helped to ensure a competitive search for a competent and committed partner in TT Post's transformation. As the DMA has progressed, the Bank has provided technical advice in areas such as financial audits needed to strengthen TT Post's institutional structure. A loan package of approximately $11 million was

secured to provide the investment required to improve the public operator's management structure, processing and delivery capacity, and retail network. During the transition from DMA to long-term arrangement, there will be a greater need for policy advice and assistance in developing long-range strategies and a supporting legislative and regulatory framework for the sector.

Reform Results

Measuring Progress

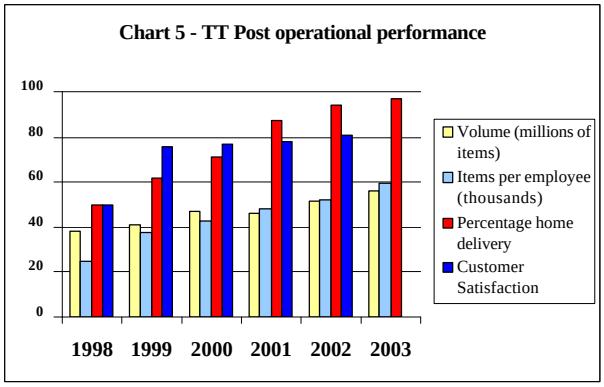
A key project objective was to open the sector to competition midway though the DMA which did not happen. In respect to the reform of TTPost the data provided by the DMA's monitoring system at the close of Year 4 provides a good vantage point to determine progress:

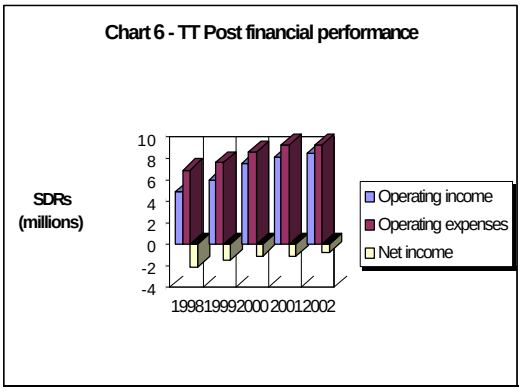
Volumes and Financial Performance

Chart 5 shows the dramatic growth during between 1998 and 2002: total volume 157 percent; per capita annual volume 145 percent; items handled per employee 175 percent; and revenue per employee 184 percent, all while achieving a 39 percent reduction in staffing. The current per capita figure of nearly 30 pieces annually exceeds the GDP/GDI predicted figure for Trinidad and Tobago and demonstrates the positive contribution the postal sector is making to economic growth. Revenue growth met all targets imposed by the DMA and (Chart 6) grew by almost 75 percent from 1998 to 2002.[25] Despite this growth TT Post did not make an operating profit by Year 4 of the contract (as had been assumed) leading to a continued need for government support. While there are institutional (inadequate capitalization, incomplete vesting of property, and a lack of a collective bargaining agreement) and operational reasons (rapid expansion of network coverage and quality) for these continued losses, it also indicates that there is a weakness in cost containment in the DMA design and in the ongoing operation of TT Post.

Coverage (Universal Delivery)

The DMA requires the management contractor to maintain a delivery network that reaches all parts of the country. Chart 1 shows that from approximately 50 percent in 1999, TT post now reaches 93.6 of all addresses in the country on a daily basis.





Quality of Service (Transit Time) and Customer Satisfaction

The DMA set aggressive quality-of-service standards for next-day mail delivery for mail posted by an established cut-off time. Prior to the introduction of the DMA it was estimated that less than 50 percent of mail was delivered within two days, whilst the latest independently monitored figures show that over 90 percent of mail was delivered by the second day after posting. More importantly, business and individual customer satisfaction with the speed and quality of delivery by TT Post (as measured during Customer Satisfaction Index [CSI] surveys) is at an all-time high. (The independent CSI measures customer perception on postal service performance over a broad range of factors.) Despite two increases in rates TT Post's CSI scores consistently improved during the first four years of the contract. The current CSI level of nearly 85 percent is a dramatic increase over the estimated 50 percent at the start of Year 1.

Innovation

The most significant factor to growth was new business, which increased by nearly 50 percent each year during Years 3 and 4. The successful development, marketing, and delivery of new business products demonstrate the improved commercial culture within TT Post and the ability to uncover and respond to emerging market demands. New products included bill payment at post offices, the country's first domestic express mail service, and bulk mailing offerings tailored to major mailers. Early in the project it was decided to terminate postal banking services since most of the accounts were dormant, and since Trinidad and Tobago already enjoys a very dense retail banking network.

Overall Market Development

It is difficult to determine whether the TT Post's increased mail volumes represent new mail, or whether the increase is due to business captured from private operators—due to the public operator's extremely efficient network and continuing monopoly. However, evidence suggests that TT Post's increased level of efficiency, expanded coverage, and successful marketing of new products has created a new interest in using mail as an advertising and business communications.

What Went Right, Areas for Improvement

What Went Right

- Enhancing postal network capacity and increasing efficiency through the introduction of an independent management contract has led to significant increase in volumes and revenues; this suggests that other countries can achieve similar results by adopting a similar approach where latent demand for efficient postal services exists.
- The measurement of five key performance indicators has led to a higher accountability and the ability to measure progress. This in turn has led to adjustment (for example in total revenue targets) as well as a clear understanding of issues to be addressed (cost containment), before the next project phase. This would be impossible without quantitative performance indicators, objective measurement systems, relevant performance targets, and structured accountability. For years to come the benefits of having a comprehensive addressing system and increased access to all population segments will pay dividends.

Areas for Improvement

- After five years under the DMA, TT Post is not financially self-sufficient and is a continuing (though decreasing) drain on government resources. Expanded coverage and aggressive quality-of-service targets have added to the cost of universal service provision and it may not be feasible to achieve universal next-day delivery and financial equilibrium throughout the network, particularly in remote areas.
- Because of TT Post's continuing financial losses there will be a two-year "transition period" between the DMA and the long-term arrangement. This delay may pose some risk in terms of losing momentum for increasing private sector participation in TT Post.
- For the immediate future (in light of its current financial situation), the government is keen to delay market liberalization. It is felt this decision should be reconsidered since liberalization will focus the incumbent on becoming more efficient and increased competition will give greater choice to the consumer.

Sustainability

Based on the first four years of the DMA, it is safe to venture that TT Post will emerge from the current management contract with a strong infrastructure and a thriving postal business. Significant investments have been made to improve processing capabilities (including a new sorting center), delivery efficiency (a new delivery fleet), and to refurbish TT Post's retail outlets. New business has been identified and captured, and the image and reputation of the public operator has been strengthened. In order to sustain these gains, as well as to realize the primary goals of the second phase of the reform project (increased private sector participation and competition), it will be necessary to address three key actions:

- Financial viability by resolving outstanding institutional and operational issues that inhibit financial performance, and by developing a cost containment program.
- Establish a sector policy that emphasizes the drive towards a state-of-the-art postal service, as well as the strategies to increase competition and private sector participation.
- Design of a legislative framework to support and implement the sector policy. The Postal Act of 1999 represented a good first step towards reform by providing TT Post with some basic autonomy and flexibility needed to operate as a business. The DMA, conversely, provided a contractual form of regulation through contract monitoring and fulfillment. However both TT Post's sustainability as well as the long-range sector policy goals (such as a more competitive postal market) require a comprehensive and sector-wide approach to regulation.

The DMA provided an efficient and productive vehicle for building the postal business in Trinidad and Tobago. Now the challenge is to build on this success to ensure future sustainability and growth.

Notes

[1] Mainly current accounts "*compte-chèque postal*" and savings accounts "*caisse d'épargne nationale*" and money orders.

[2] IAM was set-up as a "*société anonyme*" (joint stock company) under private law.

[3] The change of status aims at transforming the EPIC into a *société anonyme*. This would, among other things, remove the *a priori* budget control from the Ministry of Finance.

[4] In the last few years several studies related to the universal service were conducted. These studies illustrate the government's cautious approach to sector reform and to the introduction of competition.

[5] A larger adjustment credit focused on telecommunications and information technologies.

[6] Source: Universal Postal Union.

[7] Source: BAM.

[8] Source: BAM.

[9] BAM reached 1.13 postal counter per 10,000 inhabitants in urban areas, and 1.03 in rural areas, against respectively 1.00 and 0.92 set as initial objectives.

[10] *Source*: ITU 2002

[11] The average for sub-Saharan Africa is 0.86.

[12]*Tanzania Posts Corporation Act, 1993:* created TPC as an autonomous government corporation with a managing board appointed by the Ministry of Communications.
Tanzania Telecommunications Company Organization Act, 1993: established TTCL as a limited liability company and provided general strategy for dividing common assets and liabilities between the two new organizations.
Tanzania Posts and Telecommunications (Vesting and Liabilities) Act, 1993, provided detailed guidelines on division of assets and liabilities between the organizations.
Tanzania Communications Act, 1993: established the TCC to regulate both TPC and TTCL. TTC oversees licensing and tariff setting for reserved services/ *Public Corporations (Amendment) Act, 1993:* created the PSRC with responsibility to restructure and divest government organizations. The PSRC has control over some TPC functions such as the raising of new capital. It will decide whether and how TPC is privatized.

[13] Universal Postal Union and World Bank Group. 2002. *The Postal Industry in an Internet Age* Washington, DC: UP and World Bank.

[14]The approximately $2.9 million technical assistance loan was also used to build TPC's capacity through acquisition of computer hardware and software, postal equipment and supplies, vehicles, consultant services in postal operations and cost accounting, and a wide-range of management, marketing, and financial training.

[15] During this same time period, GDP and GDP/capita, the best indicators of postal volumes, were basically flat in Tanzania.

[16] Source: Universal Postal Union and World Bank.

[17] TPC pays taxes on its net profits and a royalty of 1 percent to the TCC based on its volumes.

[18]Frontier Economics Study of Tanzania and Uruguay (unpublished).

[19] Not in the public domain.

[20] Private operator volumes have grown slowly since reform was initiated, along the same lines as TPC's. volumes.

[21] World Bank Development Indicators, 2003. Latest available data on usage levels is from 2000.

[22] Frontier Economics.

[23] Interview with Director General Minde in Union Postale.

[24]Analysis of GDP/GDI compared with per capita volume in countries with levels of economic development similar to Trinidad and Tobago's would indicate that this number should have been closer to 26 items.

[25] Source : Universal Postal Union.

Chapter 7
Conclusion

Postal networks of the 21st century are relics of a bygone era when mail was the only form of distance communication. Postal networks were established to ensure that the whole population had access to this once unique form of communication. Those networks are still maintained to ensure the continued provision of universal service, albeit in a state of poor repair with outdated equipment and poorly trained staff. This is particularly the case in developing countries where networks were often established to fuel the economic activity of a once colonial power. Conversely nowadays these networks depend for their survival on heavy subsidies acting as a drain on government resources with their extensive networks and low volumes.

Today telecommunications and electronic communications provide easier and quicker means of keeping in touch. Indeed, such new technologies are serving as substitutes for postal communication and in turn diminishing the importance of the social function of the postal service. Such substitution brings into question the continuing need to burden the taxpayer with the provision of postal services. Governments are beginning to question whether such investment would be better spent on increasing access to other public services which may have a more significant impact on social interaction, poverty reduction, and economic development than the continued investment in the postal service.

That is not to say that mail does not have a part to play in the social and economic development of a country, it certainly does. But the role of the postal sector needs to be viewed on present need and not historic precedent. The definition of universal service therefore needs to be debated within each country and its provision defined based on the balance of social needs and the cost of providing the service. Industrial countries are often used as sources from which to adopt best practice but in the case of universal postal service it is unlikely to be a good source. Next-day and everyday delivery is neither required, attainable, nor cost effective. Developing countries should be wary of the tendencies that exist to promote

and apply such highly defined universal service concepts. In many developing countries, postal services offer low quality, insecure service, provide only the most rudimentary products, and tend to have low-quality management often appointed for political reasons. At the same time they are offered the protection of a reserved area so that they can theoretically maintain a universal service that they practically cannot provide.

The role of posts in the developing world must evolve in a way that assists in the economic development of the country. But economic development does not come from having a postal network that links every citizen in the country to a service that they neither need nor use. It comes from identifying the needs of the market and establishing products and services that fulfill those needs. That does not mean next-day-delivery, nor does it mean daily collection and delivery to rural areas that send and receive little mail, nor does it mean establishing dedicated postal outlets in villages that conduct fewer than 10 transactions per day. But such situations currently exist and governments must take on the task of reforming their postal services so that they can reduce the burden of supporting them financially.

Best practice often involves access provided not by dedicated post offices but by private agents performing postal services from already established businesses for a fraction of the cost of dedicated facilities. If post offices throughout the world are to survive and serve their communities they must undergo radical change. The time for "bandage" solutions has gone and the time for major surgery has arrived. Governments must review the needs of their postal market and move away from the romantic notion of universal-for-all to a notion of universal access based on need and cost.

Governments must look at the sector as a whole and provide those who drive economic development with the tools that will help them do just that. Competition should be introduced in the market to provide the business community with quick, reliable, and secure services that are often not provided by the incumbent. Such competition will force the incumbent operator to improve their service, become more efficient, and focus on the customer which will benefit the community as a whole.

Post offices can also act as a platform for the provision of other services and ensure that they use their infrastructure to its full potential. They can diversify and offer services on behalf of government and other businesses. If they have too much space, they should offer it for rent to businesses that can attract customers through the door. Post office outlets that receive no customers should be closed or replaced by agents that operate on a transaction fee basis. Distribution networks do not solely need to carry mail; and if spare capacity exists, the postal operator should look at what else they can distribute on behalf of other people or use other networks for the carriage of mail.

Such diversification into other businesses requires capacity that rarely exists within a largely civil service or politically managed organization. A fundamental step in transforming the fortunes of a postal service is the introduction of business practices and commercially-minded management with experience in changing postal services from loss-making, internally focused government departments into profit making, customer focused businesses. Governments should follow examples of reform around the world that have successfully transformed postal operators. They should learn the lessons, good and bad, of those examples and put in place their own process of reform that

will lead to a streamlined postal operator with growing volumes, increased quality and customer satisfaction and reduced subsidies from government.

Many people will maintain that the post office provides a vital social service and that by default subsidies need to exist in order to meet this key service. This is often used as a reason for maintaining the *status quo* and avoiding postal reform. In practice, however, customers in many countries are being failed by their postal service, and despite the extensive networks there is no real service. Trinidad and Tobago has increased access from 50 to over 90 percent and customer satisfaction has also increased by a similar margin since undergoing a postal reform process. The post office has not yet reached the reform goal of financial viability but surely it is better for the government to financially support a postal service that is increasing access, raising volumes, expanding services, and increasing quality and customer satisfaction than support one that meets none of those criteria.

The Argentina model of reform has come under criticism after the concession was revoked in November 2003 but the seven years of private management has resulted in significant investment in automation, leading to new products and services, a new brand image and a customer focus that has transformed the old state run post office into an efficient customer focused organization.

Finally Tanzania is another example of what postal reform can achieve in developing countries. Once a heavily subsidized and inefficient postal service, Tanzania Posts Corporation is now hailed as an example throughout the region on how postal services can meet social objectives and the needs of the economic community without burdening the taxpayer.

Postal reform should not be seen as an enemy of the postal service, it should rather be seen as its liberator. Postal reform provides the users of the postal sector with the freedom, choice, and quality they require to sustain their economic development and in turn, contribute to the social needs of each country in a timely and cost effective manner.

Bibliography

Chapter 2: Reinventing the Post Office

CGAP (Consultive Group to Reach the Poorest). 2004. *Occasional Paper, July 2004*. 8:5.

Correos Chile. 2004. <www.correos.cl>.

Guislain, P. 1997. *The Privatisation Challenge - A Strategic, Legal, and Institutional Analysis of International Experience*. Washington, DC: World Bank.

PWC (PricewaterhouseCoopers). 2004. "Postal Telecentres: Rural Development Through Internet Access is South African Development Community." Report produced for the World Bank. Processed.

Shirley, M., and J. Nellis. 1991. *Public Enterprise Reform - The Lessons of Experience*. Washington, DC: World Bank.

Universal Postal Union. 2004. <www.upu.int>.

World Bank. 1995. *Bureaucrats in Business - The Economics and Politics of Government Ownership*. Washington, DC: World Bank.

Walsh, T. 2001. *Delivering Economic Development*. London: Consignia.

Chapter 3: What Drives Postal Performance? A Cross-Country Analysis

Ahmed, H. 1981. *India Post Through the Ages*. Postal History Society of India. Processed.

Forestier, E., J. Grace, and C. Kenny. 2002. "Can Information and Telecommunications Technologies be Pro-Poor?" *Telecommunications Policy*.

Frontier Economics. 2002. *The Impact of Liberalization on Efficiency: A Survey*. London: Frontier Economics. Processed.

Kirkman, G.., P. Cornelius, J. Sachs, and K. Schwab. 2002. *The Global Information Technology Report 2001-2002*. New York: Oxford University Press.

Nankervis, J., I. Carslake, and F. Rodriguez. 1999. "How Important Have Price and Quality of Service Been to Mail Volume Growth in Crew" in M. Crew and P. Kleindorfer (eds) *Emerging Competition in Postal and Delivery Services*. Boston: Kluwer Academic Publishers.

Ranganathan, K. 1998. *Redirecting Mail: Postal Sector Reform*, Washington DC: The World Bank and UPU.

Walsh, T. 2001. *Delivering Economic Development.* London: Consignia.

Walsh, T. 2002. "Postal Infrastructure and Economic Development" in M. Crew and P. Kleindorfer (eds) *Postal Delivery Services: Pricing, Productivity, Regulation and Strategy*. Boston: Kluwer Academic Publishers.

World Bank. 1995. *Bureaucrats in Business: The Economics and Politics of Government Ownership.* Washington, DC: World Bank.

Chapter 4: Questioning the Monopoly-Supported Postal USO in Developing Countries

British Postal Consultancy Service. 2002. "Costing and Financing of Universal Service Obligations: Universal Service Costs and Estimates Report." PHARE Project 9728-02-01.

Campbell, J. 2004. "History of Universal Service in the United States", presented at the 12th Conference on Postal and Delivery Economics, June 2-5, 2004, Cork, Ireland.

Cohen, R. et. al. 2003a. "A Comparison of the Burden of Universal Service in Italy and the United States." US Postal Rate Commission. Processed.

Cohen R. et al. 2003b. "Towards a General Postal Service Cost Function." US Postal Rate Commission. Processed.

Kenny, Charles. 2002. "Information and Communication Technologies for Poverty Alleviation: Costs and Benefits." *Development Policy Review.* 20(2).

Ogilvie, A. 1893. "The Rise of the English Post Office." *The Economic Journal.* 3 (11).

PWC (PricewaterhouseCoopers). 2004. "Postal Telecentres: Rural Development Through Internet Access is South African Development Community." Report produced for the World Bank. Processed.

UPU (Universal Postal Union). 2001. *Letter Post Manual*. Berne: UPU.

———. 2002. *Postal Statistics*. Berne: UPU.

UPU and WB. 2001. "The Postal Industry in an Internet Age: Case Studies in Postal Reform." Washington, DC: UPU and World Bank.

Walsh, T. 2001. "Delivering Economic Development: Postal Infrastructures and Sectoral Reform in Developing Countries." London: Consignia.

World Bank. 2002. "World Development Indicators." Washington, DC: World Bank.

Chapter 5: Postal Policy and Regulatory Reform in Developing Countries

Alvero, A. and A. Levy. 2004. "The WTO Doha Development Agenda: Defining the Scope of Postal Service Liberalization" in Michael A. Crew and Paul Kleindorfer (ed) *Competitive Transformation of the Postal and Delivery Sector.* Boston: Kluwer Academic Publishers.

Guermazi, B. 2000. "Exploring the WTO Reference Paper on Regulatory Principles." Center of Studies for Regulated Industries, McGill University. <http://www.law.mcgill.ca/institutes/csri/paper-guermazi-reference.php3>.

Harford, G. 2004. "The Liberalization of Postal Services in New Zealand." Rutgers Conference on Postal and Delivery Economics, Cork, Ireland.

TMC Asser Institute. 2004. "The Study of the Relationship Between the Constitution, Rules and Practice of the Universal Postal Union, The WTO Rules and the European Community Law." The Hague. Processed.

Volner, Brickman, and Field. 2004. "Postal reform: A Comparative Analysis and Critique of Regulatory Models." Rutgers Conference on Postal and Delivery Economics, Cork, Ireland.

World Bank. 2004. "Reforming Infrastructure: Privatization, Regulation and Competition, A World Bank Policy Research Report." Washington, DC: World Bank.

Chapter 6: Case Studies

ITU (International Telecommunications Union). 2002. *World Telecommunications Development Report.* Geneva: ITU.

UPU (Universal Postal Union). 2002. *Postal Statistics*. Berne: UPU.

UPU and World Bank. 2002. "The Postal Industry in an Internet Age: Case Studies in Postal Reform." Washington DC: UPU and World Bank.

Frontier Economics. 2003. "Evaluation of Postal Sector Reforms: A Synthesis." London: Frontier Economics. Processed.

Author Biographies

Boutheina Guermazi is a regulatory specialist in the Global Information and Communication Technologies department at the World Bank, involved in telecommunications policy and regulatory reform in a number Africa. Before joining the Bank in April 2004, Boutheina was Assistant Professor at the Faculté des Sciences Juridiques Politiques et Sociales of Tunis and a telecommunications advisor to the Sector Reform Unit at the International Telecommunications Union. She also worked as strategy analyst for the Strategic Unit at ITU and a telecom regulatory consultant for the UNDP. Boutheina holds a Doctor Degree in telecommunications law and policy from the Faculty of Law at McGill University (2003), an LLM degree in international law from Indiana University and a Bachelor degree in public law from the university of Tunis. She held the Fulbright scholarship (95-97) and was a research scholar at the Social Science Research Council (USA) and the Center of studies for regulated Industries (Canada).

Pierre Guislain is the manager of the World Bank Group's ICT Policy Division. Pierre, a Belgian national, joined the World Bank in 1983 and worked successively in the West Africa Project Department, the Legal Department, the Asia Technical Department, and the Private Sector Advisory Services (formerly PSD) Department, before joining GICT, a joint Bank-IFC department. From 1997 to July 2001, he managed a joint program between the World Bank and the European Commission on Private Participation in Mediterranean Infrastructure. Pierre is the author of several publications on privatization and infrastructure sector reform. Over the last 15 years, he has advised many governments on telecommunications and postal reform, with emphasis on issues of market structure, competition, regulation and privatization. Pierre holds an MPA in Economics and Public Policy from Princeton University and a graduate law degree from the University of Louvain.

Charles Kenny is a senior infrastructure economist in the GICT Department of the World Bank Group. He works on a number of projects related to information infrastructure, including coordination of the bank's information infrastructure activities in Afghanistan and Kenya. Previously, Mr. Kenny was an author on the 1999/2000 World Development Report. Mr. Kenny has MAs from Johns Hopkins School of Advanced International Studies and London University's School of Oriental and African Studies and a BA from Cambridge University. He has published on issues including ICT in development, economic growth, and the link between growth and happiness.

Graeme Lee is a senior postal policy specialist in the World Bank. His current portfolio of work includes advising on World Bank postal projects in Afghanistan, Malawi, Nicaragua and Trinidad and Tobago. Prior to joining the bank in January 2004 Graeme was based in Buenos Aires as the strategic advisor to Correo Argentino, advising on issues as diverse as the UPU quality of service fund to costing of universal service. His 18 month assignment in Argentina came during a 14 year career working for Royal Mail where he worked as a consultant on international assignments in central and eastern Europe, Africa and the Caribbean in the fields of key account management, transport planning, costing systems and postal reform. Graeme has a BSc (Hons) degree in Transport and Distribution from the University of Huddersfield.

Isabelle Segni is a French national who joined the Bank in 2001 on a secondment program from the Ministry of Economy, Finance and Industry (MEFI). She covers regulatory issues mainly related to postal projects and focuses on the modernization of the postal industry. She spent 5 years with the MEFI in the department charged with postal and telecommunication regulation and was then sent to Washington for a 2-year assignment with the French Treasury office at the French Embassy. She holds a B.A. in political sciences and is graduated from the École Nationale Supérieure des Postes et Télécommunications.