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TAXING ALTERNATIVES:
POVERTY ALLEVIATION AND THE SOUTH AFRICAN TAXI/MINIBUS INDUSTRY

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About Enterprise Africa!

Enterprise Africa! is a research project that investigates, analyzes, and reports on enterprise-based solutions to poverty in Africa. The project is uncovering some of the hidden success stories in Africa – stories of people and policies that make a difference in the lives of Africa's people today. In essence, it documents African solutions to Africa's problems. These success stories involve intrepid, committed entrepreneurs across the continent, who are developing an amazing array of businesses – from the smallest-scale shops to multinational corporations – and the institutions that support them. These entrepreneurs are promoting economic growth and are an unheralded key to poverty alleviation. *Enterprise Africa!* is a joint initiative with the *Free Market Foundation of Southern Africa* and the *Institute of Economic Affairs* of London, England, and is supported by a generous grant from the *John Templeton Foundation*.

For more information about the *Enterprise Africa!* project visit us online at <www.mercatus.org/enterpriseafrica> or contact Karol Boudreaux at (703) 993-4941 or kboudrea@gmu.edu

Cover photo: Susan Anderson – Passengers waiting in Cape Town for a minibus to Mowbray. All photos are property of the Mercatus Center.

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EXECUTIVE SUMMARY

After five decades and billions of dollars, foreign aid to Africa has failed to ignite sustainable economic growth and poverty alleviation. For too many Africans, their quality of life today is worse than it was thirty years ago.

Rather than looking to outsiders for answers, the key to poverty alleviation in Africa is more likely to come from local entrepreneurship. However, this is often thwarted by government actions that make it difficult, if not impossible, to start and grow a business.

The taxi/minibus industry in South Africa serves approximately 65% of the South Africans using public transportation and has been a wellspring of black entrepreneurial activity. Yet, this industry suffers from a legacy of illegality—thanks to apartheid-era laws that restricted economic opportunities for black South Africans. It also suffers from continuing problems of violence and from safety concerns.

In order to address these problems, the South African government created the Taxi Recapilization Programme (TRP). The TRP requires taxi/minibus operators to trade in 16-seat minibuses and purchase larger, new vehicles. However, this policy will not address the underlying problems that continue to provoke taxi violence.

In order for policies that address taxi violence to be as effective as possible, they must focus on official corruption and establishing mechanisms that determine the access to taxi routes and ranks. This can be achieved by creating secure, defendable, and tradable property rights over routes and ranks. Unless these policies are implemented, violence is likely to continue.

ENTERPRISE AFRICA! RESEARCH APPROACH
LOCAL SOLUTIONS FROM LOCAL KNOWLEDGE

This study, as with all the studies conducted by the *Enterprise Africa!* research team is based largely on information gathered in Africa from Africans. Our core research team was comprised of the Mercatus Center's Karol Boudreaux and Susan Anderson, and South African based Free Market Foundation's Eustace Davie, Temba Nolutshungu, and Jasson Urbach. The unique approach of the *Enterprise Africa!* team helps ensure that our studies reflect what's actually happening in the communities in which we work, rather than an outside view of how things might be.

Temba Nolutshungu in Guguletu Township

For *Taxing Alternatives: Poverty Alleviation and the South African Taxi/Minibus Industry* research team members from FMF called on the experience they have gained from many years of interacting with members of government and the taxi industry to recognise the important role taxis play in the transport of commuters, and the challenges posed by the institutional context in which they operate. The team also scoured the existing literature on the industry in South Africa and similar transportation providers elsewhere.

Karol and Jasson interviewing farmers

FMF team members based in Johannesburg arranged meetings with key figures in the industry, learning from them about issues and individuals the team would later explore and interview. FMF team members in Cape Town did the same, with a particular focus on local policymakers, passengers, and drivers from the Townships in the area. With the groundwork for a productive stint of field work laid, Mercatus Center researchers joined fellow team members in South Africa to speak with several dozens of people involved in some aspect of the taxi/minibus industry.

This local information was then cross referenced with existing literature and other relevant data. The picture that emerged was captured and peer-reviewed by colleagues in South Africa and the United States. The goal of our study is to provide a unique view of how local enterprise contributes to the well being of members of the community in which it operates and how the institutional environment created by local policy enables or inhibits productive enterprise-based solutions to poverty. Our unique approach to this research, which relies substantially on local experience and knowledge, helps to ensure that the picture we paint is tied to the world it intends to depict.

Taxing Alternatives:
Poverty Alleviation and the South African Taxi/Minibus Industry*

INTRODUCTION

South Africa's transportation landscape is a legacy of apartheid. Apartheid-era laws forcibly moved black South Africans out of city centers to surrounding townships. Black South Africans were taken off valuable farmland and relocated to rural "homelands." Restrictions on employment meant that many black South Africans were barred from economic opportunity, so men were often forced to travel long distances to find work. Yet, until the late 1970s the apartheid government maintained tight control over train, bus, and taxi services—making movement difficult and costly.

Strict control of transportation by the National Party government created a variety of problems for black South Africans: transportation choices were limited, there were few taxis, buses and trains were often inconvenient, but worse, they were patrolled by South Africa's police force, in search of people traveling without a required "pass."

Despite a hostile environment, some black entrepreneurs undertook great risks to meet consumer demand for a more accessible and convenient form of transportation. Throughout the 1970s and 80s, black entrepreneurs developed a strong presence in the taxi/minibus industry.[1] Taxi entrepreneurs defied an oppressive regime, often operating illegally and helping black South Africans move more freely.

The taxi/minibus industry is credited with supporting black South African communities by providing a depoliticized, decentralized, inexpensive, and more accessible alternative to public transportation. The South African taxi/minibus industry empowered black South Africans at a time when few opportunities for economic empowerment existed. It also provides a strong example of enterprise serving as a platform for fighting discriminatory government policies, for job creation, and for poverty alleviation.

Today, minibuses continue to provide a vital service to millions of South Africans. They serve 65% of those people taking public transport. The industry supports hundreds of thousands of jobs in

[1] The taxi/minibus industry is comprised of both metered taxis and larger non-metered minibuses.

an economy with an official unemployment rate of 26.7%.[2] Minibuses are relatively inexpensive and widely accessible.[3]   They help millions of commuters get where they need to go—improving worker productivity and decreasing commute times.

However, the taxi/minibus industry struggles with a legacy of illegality. A number of serious weaknesses plague the business, including safety problems and persistent bouts of violence. These weaknesses limit the benefits the taxi/minibus industry could provide to commuters and to the South African economy.   For this business to continue its important role as a strategic source of poverty alleviation, issues surrounding safety and violence must be addressed.

PURPOSE OF THE STUDY

The purpose of this study is to explore ways in which the taxi/minibus industry in the aggregate, as well as individual taxi and minibus entrepreneurs, has contributed to poverty alleviation in South Africa. While research has explored the problems surrounding the industry (Dugard, 2001; Sekhonyane & Dugard, 2004; Fourie, 2003), relatively little has been written on the positive aspects of the industry and, in particular,

on the relationship between taxi entrepreneurship and poverty alleviation. This study seeks to fill this gap.

This study investigates the role the taxi/minibus industry plays as a source of employment and as a stepping stone to improve the lives of some poor South Africans. It seeks to understand the institutional environment out of which the taxi/minibus industry developed and in which it is currently situated. This institutional environment has, it is argued, led to the development of a set of incentives that promote, rather than constrain, the use of violence in the industry. Recognizing the need to address problems of taxi violence, the ANC government is implementing a policy designed to "formalize" the taxi/minibus industry. This policy does not, however, address the institutional weaknesses that undermine the taxi/minibus industry.

The study argues that the government's taxi policy will lead to unintended consequences, including a government-created cartel of taxi services, reduced economic opportunity, increased unemployment, and continued reliance on pirate taxis. We conclude by noting that institutional reform will be necessary in order to create more space for

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[2] See "Latest Key Indicators," *StatsOnline*, September 2005. Available at: <http://www.statssa.gov.za/keyindicators/keyindicators.asp>.

[3] Over 14 million people in South Africa use minibus-taxis everyday. See <www.ComutaNet.co.za>.

positive taxi entrepreneurship which, in turn, should contribute to poverty alleviation in South Africa.

A. ENTREPRENEURSHIP IN THE TAXI/MINIBUS INDUSTRY

Entrepreneurship plays a vital role in economic development. Entrepreneurial activity creates wealth; higher levels of entrepreneurship in a society lead to increases in GDP, societal wealth, and quality of life.[4]

What distinguishes entrepreneurs from other economic actors is that they are alert to opportunities to benefit from particular ideas.[5] During the late 1960s and early 70s, some black South African entrepreneurs recognized a strong demand for transportation that was more accessible than either buses or trains, that was more direct, and that was free from police surveillance. These entrepreneurs recognized that if they could provide a dependable taxi service, they would likely create value for other black South Africans who wanted a better transportation alternative.

Taxi entrepreneurs who provided this service were creative and innovative risk takers.

Operating a taxi service under the apartheid-era National Party government required a willingness to risk incurring fines, jail time, or vehicle confiscation. These were perilous times for black entrepreneurs. A high degree of uncertainty surrounded any black business activity. The government could shut down a business, confiscate business assets, and jail people for operating without licenses. This high level of uncertainty led many taxi entrepreneurs to hide their activities. Until the late 1970s, most black taxi operations were illegal, so operators had to identify ways to operate outside the law while still serving customers. David Mofokeng provides just one example of a taxi entrepreneur who struggled to survive under the strictures of the apartheid government.

ENTREPRENEURSHIP IN ACTION –
DAVID MOFOKENG

Every entrepreneur takes on risk when starting a business. Black South African taxi entrepreneurs who started and ran businesses under apartheid faced more than just financial peril—they risked their personal safety.

In 1959, when David Mofokeng started working in the taxi industry, black taxi owners and drivers were issued permits allowing them to drive only

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[4] See Global Entrepreneurship Monitor, *South Africa 2003 GEM Report*. Available at: <http://www.gemconsortium.org/document.asp?id=334>. South Africa's ranking in the 2003 GEM Report slipped from the previous ranking, indicating a low level of entrepreneurial activity in South Africa, as compared with other developing countries in the study.

[5] See Israel M. Kirzner and Frederic E. Sautet, "The Role of Entrepreneurship in Markets: Implications for Policy," *Mercatus Policy Series,* Policy Primer (forthcoming, 2006).

within townships, and usually only within a three to five-kilometer radius. Travel to or from rural areas, townships, and cities had to be done using public transportation—trains and buses. This not only ensured business for the bus and railway system, but made it easy to enforce pass laws that severely restricted black South Africans' travel.

Mr. Mofokeng lived in Soweto and had a family in the rural town of Bergville (about 350 km away). He knew first-hand the hardship of traveling between the two places: a ten-kilometer walk to town, a 50-kilometer ride to Ladysmith, followed by a wait for the train to Johannesburg, and at last a bus to Soweto. The entire trip was expensive and could take up to 24 hours. The obvious need for a transportation alternative is what inspired David Mofokeng to start his long distance taxi service.

He began by converting a truck into a vehicle to seat 15–20 passengers and transporting people from Bergville to Johannesburg and Soweto. Every trip was a risk: if the taxi was stopped by police along the way, passengers would be caught without passes and David would be fined. David would have to use the money he earned for the trip to pay these fines. All routes therefore had to be chosen to avoid the police. He often traveled on unpaved roads and over mountain passes. It was better to take chances with poor roads and bad weather than risk confronting the police.

Despite these hardships, the demand for this service was so great that business thrived. Mr.

Mofokeng expanded the number of routes, and converted more trucks into minibuses. In fact, the need for cheap and available transport was so great that ISCOR, a government-owned steel company, approached Mr. Mofokeng to transport their employees (illegally) from the Eastern Cape to Johannesburg. The business also expanded to carry mine workers from Lesotho to the mines north of Johannesburg—a trip which could take two days by public transport.

Under the apartheid regime, David Mofokeng's business offered much more than just a more convenient transportation service. Because of pass laws, individuals traveling without passes were easy targets on public transport. Police would just wait at the train and bus stops to catch people when they disembarked. Taxis provided freedom of movement that would not have otherwise existed.

Mr. Mofokeng faced significant obstacles to continuing his business. As the only private long-distance transport service for many years, he was a direct threat to the state-owned transportation services. By 1971, he had 50 taxis working for his company. He was called to Pretoria by the Director General of the Transportation Ministry and warned to "dismantle all of that nonsense" or be jailed. He did not stop his business and was directly targeted by the police, beaten, jailed, and tortured. He decided that as long as he was alive he would continue.

Mr. Mofokeng persevered and eventually found

Small businesses congregate around taxi ranks

a way around the restrictions when rental car companies started doing business in South Africa. He was able to purchase car-hire permits for all of his vehicles, and when stopped by the police the driver could show a contract proving that the passengers had hired the car. This strategy not only made doing business legal and therefore easier, but encouraged others to enter the industry.

David Mofokeng is one example of how taxi entrepreneurs took on great personal and financial risk in order to build businesses. In David's case, he was able to help his family, create employment for many people—drivers, mechanics, and others—and he made life easier for innumerable customers.

As a pioneer in the black taxi industry, David Mofokeng paved the way for other black entrepreneurs. Over time, taxi entrepreneurs followed his lead, undertaking great risk to enter this business. Their actions helped people in their communities travel more freely. Their business was also a form of protest against the restrictive National Party policies.

POVERTY ALLEVIATION AND THE TAXI/MINIBUS INDUSTRY

As David Mofokeng's story illustrates, the taxi/minibus industry played an important role economically as well as psychologically for black South Africans. The business generated by the taxi/minibus industry helped to ease poverty and the service that taxi owners provided offered a way to protest government-controlled public transportation. Today, the taxi/minibus industry continues to make life easier for the commuting public, while adding to the wealth of the South African economy by providing a relatively inexpensive and convenient form of transportation.

Most notably, the taxi/minibus industry has generated economic growth and helped to lessen poverty in South Africa in the following ways:

- The taxi/minibus industry provides an opportunity for self-employment. Under apartheid there were few options for black South Africans to expand their opportunities through resourcefulness and hard work. Today, with high unemployment levels, self-employment continues to be a key survival strategy. Ownership of a taxi business allows entrepreneurs to work for themselves, accumulate capital, and broaden their business experience. It also provides an entrepreneurial platform from which to build other businesses.

- The taxi/minibus industry generates wealth in the economy by providing relatively inexpensive transportation that is more efficient than government-run services. This means that people have expanded abilities to get to much-needed jobs. Because of taxis, people can get to and keep jobs in parts of cities that were not accessible to them before or accessible only with extreme effort. Taxi service can make the difference between having a job and being unemployed.

- The taxi/minibus industry has improved the quality of life for poor South Africans by lessening the time spent commuting. Buses and railways with fixed timetables and limited numbers of stops require

TAXI STATISTICS[6]

- Number of people using taxi service each day: 14 million+
- Number of officially registered minibus taxis on South African roads: 120,000+
- Average number of taxis per owner: 2
- Average number of hours taxi drivers spend daily on the road: 8.8
- Number of days each taxi driver works per week: 6.33
- Average monthly kilometers driven by a taxi: 8,000
- Average number of passengers transported monthly per vehicle: 3,161
- Average time spent daily in a taxi by a passenger: 65 minutes
- Average number of trips per passenger per day: 2.3

[6] Source: <www.ComutaNet.co.za>

commuters to spend additional time commuting to work, doing shopping or even visiting friends and family outside urban areas. Taxis provide convenient times and door-to-door service.

- The taxi/minibus industry has created employment. Jobs related to driving, servicing, updating and maintaining vehicles are only part of the story. Taxi ranks (the places where people get into a taxi) and transition points have created focal points for marketplaces of goods and services.

TAXIS AND MINIBUSES AS STEPPING STONES

Taxis and minibuses also serve another important function—they provide some people with a first step on the ladder of economic progress. Working as a taxi driver is a tough and stressful job. However, for some people, driving is a means to something better.

Some people who start out as taxi or minibus drivers are able to save enough to become taxi owners; they become employers instead of employees. This is what happened to David Mofokeng and Ernest Malefane. Both men started as drivers, but were slowly able to save money and purchase their own vehicles. Working as drivers was a first step for both men on the path towards greater personal empowerment.

Today, there are over 80,000 registered taxi owners in South Africa.[7] Two examples of drivers who have worked to become taxi owners include B.G. Mogorosi, also known as "Boy Boy," and William "Willy" Khazamula Ngobeni. Both men started small, with a single car and desire to do more. Both were able to grow their businesses, despite having limited access to capital. Both did what entrepreneurs the world over do: they recognized a potentially profitable opportunity, in their case, transporting tourists around post-apartheid South Africa, and they acted on that recognition.

In the early 1980s, Boy Boy started work as a driver for a white taxi owner. He drove from the townships around Johannesburg into the city center. In 1984, with the help of a friend, he was able to purchase his own taxi. By 1987, he approached a bank for a loan and was able to buy another vehicle. Today, Boy Boy employs four drivers for his four taxis. He still drives from the townships to the city, but now his business also includes taking visitors on "township tours" in the Johannesburg area—showing people the sights and telling the stories of the South African resistance movement.

Willy also started work as a taxi driver, but by the time he started most taxi owners were black. For Willy, the moment of entrepreneurial alertness came in 1997 when he was driving a taxi and real-

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[7] There are approximately 80,000 registered taxi owners who are members of the South African National Taxi Council (SANTACO). See "South African National Taxi Council," *Mbendi: Information for Africa.* Available at: <http://www.mbendi.co.za/orgs/cslf.htm>.

ized there was money to be made from serving the many visitors who were coming to South Africa. He signed up for training as a tour guide. After his training was completed Willy tried to get a bank loan to buy a minivan, but was turned down for lack of collateral. Undeterred, he decided to chauffeur tourists in his own car, an old Opel sedan. Eventually, he was able to save enough money to buy a used minivan. After that, he bought a small house. And with his new title deed, he went back to the bank for a loan—at 75% of the purchase price for a new van. Despite these constraints, "Willy's Tours and Safaris" is doing well. He has purchased three Volkswagen vans and is now saving to buy an even larger, 20-seat bus.[8]

Finally, for some, the taxi/minibus industry provides a platform from which to launch themselves into other businesses. Boy Boy Mogorosi, for example, told us that he is ready to leave the taxi business and has decided that the time and circumstances are right for him to move into real estate. He has already purchased his own home and now wants to buy other homes and sell them. His wife likes the idea, so Mr. and Mrs. Mogorosi are planning to "shift gears" and start a new enterprise.

TAXIS PROVIDE EMPLOYMENT

One obvious way in which the taxi/minibus industry has helped alleviate poverty is by providing employment. The taxi/minibus industry is estimated to be anywhere from a 10 to a 16.5 billion rand ($1.5 to $2.5 billion) per year business.[9] Banks are estimated to have invested some 300 million rand ($45 million) via asset-based finance in the taxi/minibus industry.[10] This money not only benefits taxi owners and drivers, but those in related jobs. For example, the South African Institute of Race Relations reported that the taxi/minibus industry purchases over 800 million litres of petrol and 3.5 million tires each year, and provides the main minibus manufacturing companies with more than two billion rand ($300 million) per year.[11] This translates into support for approximately 300,000 jobs. This is in addition to the large number of jobs held by people working directly for the taxi/minibus industry as mechanics, petrol stations attendants, bookkeepers, and car washers. And finally, there are a host of people who make a living serving people who use taxis. Taxi ranks often serve as a profitable location for hawkers, food stands, and other small informal retail businesses. All of these individu-

[8] See Abraham McLaughlin,"A black man's unpaved road to S. Africa's middle class," *Christian Science Monitor*, April 21, 2004. Available at: <http://www.csmonitor.com/2004/0421/p01s04-woaf.html>.

[9] The South African taxi industry is estimated to have revenues of approximately 16.5 billion rand. See *Competition News*, Edition 11, March 2003. Available at: <http://www.compcom.co.za/resources/Issue%2011%20March%202003%20Newsletter.doc>. Throughout this Policy Comment we use a 6.5 rands per US dollar exchange rate, as it prevailed in September and October 2005 when we visited.

[10] "Letter to Stakeholders," *African Bank Investments Limited 2004*. Available at: <http://www.africanbank.co.za/book_index.asp?bookmark=http://www.africanbank.co.za/invest_stakeholders.htm>.

[11] See "Black Economic Empowerment," *Spotlight*, Vol. 2, 1993, South African Institute of Race Relations, 25.

als depend upon the taxi/minibus industry for their livelihoods.

> M angosuthu Buthelezi, head of the Inkatha Freedom party, stated:
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> "The taxi industry also has an important role to play in banishing poverty as the majority of South Africans still live on low incomes and are dependent on public transport. The ubiquitous taxi ranks throughout South Africa are literally life-lines of commerce and communication."[12]

As just one example, the taxi rank in central Cape Town is a thriving, spontaneous market-place. Over 1,200 taxis come through the rank each day loaded with passengers. Entrepreneurs have been quick to take advantage of this market. According to a consulting firm hired by the city of Cape Town, over 200 traders come to do business each day at the rank,[13] from individuals selling pieces of candy and fruit on an overturned bucket, to others selling clothes and gifts, phone cards, hot meals, even makeshift barber shops. Locating a business in a taxi rank ensures that thousands of potential customers a day see your wares. In addition, during the slow afternoon hours, you'll find another group of people busily washing the waiting minibuses.

Today, there are approximately 15 million black South Africans of working age. The unemployment rate for this group is 24.7%. Although it is difficult to determine precisely how many people work in the taxi/minibus industry (because so many taxis are informal, drivers may be illegal aliens, etc.), Statistics South Africa does have combined figures for the number of people working in "transport, storage and communication." In March, 2005 it estimated that 210,000 South Africans were formally employed in this field.[14] Because these figures relate only to formal employment, they represent only a portion of the total employment attributable to the taxi/minibus industry.

Taxi jobs are among the few jobs in South Africa that are open to lower-skilled workers. Taxi jobs are difficult, but they *are* available, and in a country with such high unemployment rates, even tough

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[12] Mangosuthu Buthelezi, head of the Inkatha Freedom party, speaking at the 2005 Top Six Taxi Management Annual Meeting. Available at: <http://www.ifp.org.za/Speeches/190805sp.htm>.

[13] See "Cape taxi rank a 'disaster waiting to happen'" *Mail & Guardian online*, July 12, 2005. Available at: <http://www.mg.co.za/articlePage.aspx?articleid=245204&area=/breaking_news/breaking_news__national/>.

[14] See the Survey of Employment and Earnings, March 2005, *Statistics South Africa*. Available at: <http://www.statssa.gov.za/publications/P0275/P0275March2005.pdf>. In a personal communication, Noel Ndholvu of *Taxinews* stated: "According to various estimates, there are currently between 150,000 and 170,000 taxi owners and operators in South Africa. In Parliamentary briefing in June 2002 it was estimated that there are 200,000 minibus taxis in South Africa in operation, which implies that there at least 200,000 taxi drivers. If you add the queue marshals, taxi ranks officials, cleaners and drivers' assistants, the number quickly increases to about 300,000 people who work in the taxi industry, excluding the taxi owners/operators who may or may not drive their own taxis."

Central Cape Town taxi rank

jobs are welcome. Themba Maseko is a taxi driver who left the countryside and has experienced how difficult it can be to work in this industry.

A Day in the Life . . .

Themba Maseko grew up on a farm near Piet Retief in eastern South Africa. He believed that the city offered him a way to escape a rural, subsistence existence. So, he moved to Johannesburg to find work. Themba had not finished school and this fact significantly reduced his chances of finding formal employment. But, he had learned to drive a tractor and other vehicles on the farm and he used these skills to earn a living by driving a minibus taxi in Johannesburg. At first, he transported passengers between Soweto and Lesotho, a round trip of some 800 km. He then switched to driving for another taxi owner, transporting passengers between Ivory Park, a part of Tembisa, and Sandton (a northern suburb of Johannesburg); a round trip of about 65 km.

For Themba, each day begins at five a.m. He travels from his home in Ivory Park to the taxi rank. Depending on where he is placed in the order of taxis (this is determined the previous day), his first trip could begin at six a.m. The trip from Tembisa to Sandton takes approximately 35 minutes in peak traffic. His goal is to try and get his passengers to Sandton as quickly as possible so that he can get in as many trips as possible during the morning rush hour. During the day, between his morning and late afternoon driving sessions, Themba has free time to relax and sleep before the stresses and strains of peak hour city traffic begin all over again. He usually finishes his last trip by seven o'clock in the evening.

The fare between Tembisa and Sandton is 7.50 rand ($1.15) per passenger, which means Themba can charge a total of 112.50 rand ($16.80) for the 15 passengers he carries. He can earn more if he overloads the van and carries 18 passengers

instead of the normal 15. On an average weekday Themba makes five trips a day—two in the morning, taking passengers to work, and three in the afternoon bringing them home again. On Saturdays and Sundays he might only make one trip between Tembisa and Sandton. He has many repeat customers, and they say that he is their preferred driver because he is responsible and polite.

Themba's daily income on weekdays is 562.50 rand ($83.95) and 225.00 rand ($33.60) on weekends. But he must pay the taxi's owner 350.00 rand ($52.24) per day, a total of 2,450.00 rand ($365.67) per week. Themba also pays the fuel bill and the cost of washing and cleaning the vehicle each day. After all these expenses are paid, Themba hopes to make a minimum of 250.00 rand ($37.30) per week for himself—a very small wage, but one that is preferable to work on the farm.

Because his wage is small, Themba has an incentive to carry as many passengers as he can, make the greatest possible number of trips, and travel as fast as possible—the same kinds of incentives taxi drivers face the world over. In the four years that he has been driving this route he has never had an accident. However, Themba expressed concern about the condition of his vehicle. He has been advised that parts that could affect the steering mechanism were worn and should be replaced, but the owner refused to carry out the repair despite repeated requests.

Like thousands of other drivers, Themba faces a daily dilemma: he needs to travel as fast as he can to fit in as many trips as possible but if he is caught speeding he will be fined. He might also be fined for vehicle defects. If the fines remain unpaid, which they often do, he could face arrest. Themba pays the fines to avoid such hazards. Because there are so many potential taxi drivers, owners are largely unsympathetic towards drivers who complain. With millions of unemployed South Africans, the owners know they can always find another driver.

For Themba, and others like him, life isn't easy. He works to feed and clothe his four children and sustain himself, but he is not able to save, get married, or buy a house. He speaks of completing his schooling and of getting a heavy-duty license that will allow him to drive trucks and buses for higher pay. He is tired of the constant pressure under which he operates, but he has not yet been able to find a better alternative.

Despite these real problems, Themba is a good example of one of the less obvious ways in which taxis have contributed to the quality of life for low income South Africans: they offer a more personalized and convenient service than either buses or trains. Themba knows his clients and treats them well. He is a part of their daily life and they are part of his.

As with other taxi and jitney[15] services around

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[15] A jitney is a small bus or van that transports passengers along a route for a small fare.

During off-hours taxi drivers outsource washing

the world, South African taxis are an everyday part of life. They provide relatively inexpensive, flexible, and accessible transportation, and most of the time they do get passengers where they want to go without a problem. Takyi (1990) describes why taxis are particularly important to the poorest populations:

> They charge relatively low fares and provide wide coverage across a city, often serving poor areas that get no other service. Their operations are flexible so they can add service at peak times and quickly cover new neighborhoods. Their small size and cheap labor enables them to profitably provide frequent service in smaller neighborhoods and along narrow streets, as well as work the main thoroughfares.

This kind of service also allows for personal exchanges that are unlikely to happen otherwise. "If the same person rides on your taxi... everyday, even though you don't know his name you know his face and you see him everyday for years, and he asks to borrow ten rand one day and he says he will pay you back at the end of the day you can do it."[16] It is the lack of mandated timetables and specific stop locations that allows taxis to offer these personal services and compete with subsidized train and bus services.

The spillover effect of this time-saving, money-saving service is clear when considering commuters as employees. By shortening commute times and providing predictable and plentiful service, the taxi/minibus industry can be thought of as having increased labor productivity. In his opening address at the Gauteng

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[16] Interview with Molefe Rapodile, September 19, 2005, Sandton/Johannesburg, South Africa.

COMMUTING BY MINIBUS TAXI ACROSS JOHANNESBURG EVERY DAY

Thandi Nduna, the mother of five-year-old Ayanda, drops her son off at school in Malvern, a suburb of Johannesburg, in time to catch a taxi at 6:45 a.m. So begins her long commute to work. The first leg of her journey takes her to the Noord Street taxi rank in central Johannesburg, where she joins a queue to board another taxi at about 7:20 a.m. This second taxi takes her to Benmore Gardens in Sandton. Thandi normally arrives at 8:25 a.m. She walks two blocks and arrives at work by 8:30 a.m. When it's time to leave work, she gets on another taxi at 5:25 p.m., changes vans at about 5:55 p.m. and arrives at home destination at about 6:20 p.m. This adds up to a total daily traveling time of just over two-and-a-half hours.

The taxi rides cost Thandi 4.50 rand ($.68) and 6.00 rand ($.90) respectively, 21.00 rand per day ($3.18) or about 460.00 rand per month ($69.70). Traveling by bus would cost her 275.00 rand per month ($41.67); however, the bus timetable does not fit her schedule so she takes taxis even though she regards them as dangerous. Her most serious complaint is that taxi drivers weave in and out of traffic to get to their destinations as soon as possible. Thandi believes that South African traffic police do very little to correct this problem.

Despite her fears, Thandi, who has traveled by taxi every working day for almost four years, has never been in a taxi accident. She has also never been in one that has broken down or that has stranded its passengers. Thandi feels that there are no really badly maintained taxis on her route. She thinks this good record is explained by the fact that they are traveling to an up-scale destination. The really un-roadworthy vehicles carry passengers within townships, such as Soweto, she says, and do not venture into other areas.

Asked if she would refuse to board a taxi that was in a bad state of repair, she was a little hesitant. She explained that about three years ago she had refused to board a taxi that was being overloaded; four passengers were put in seats made for three. The queue marshal at this taxi rank and other drivers then refused her a seat, not only on that day but also on subsequent days. As a result, Thandi had to change ranks. After her experience, Thandi said she would think twice before refusing to board the assigned taxi but would definitely do so if it were in a dangerous state of disrepair.

Molefe Rapodile started in the taxi industry as a driver for his father and is now a head of public relations for Top Six Taxi Management Ltd.

Provincial Taxi Conference in 2000, then Minister of Transport Dullah Omar stated that although other industries may not be aware of it:

> [T]he taxi industry, despite all the bad press it sometimes receives, has done as much as any aspect of the industrial relations system to contribute to employee productivity. This is because it is a very efficient mass transportation system, able to offer its customers greater flexibility and convenience than would be possible in any other system of mass transportation.[17]

Over the past forty years, the taxi/minibus industry has experienced tremendous change. It has gone from being a small, highly regulated, though largely illegal service industry to being a huge industry with excessive, constantly changing, inconsistently applied regulation[18] and many unlicensed operators. In 1977, when the South African government passed the Road Transportation Act, legalizing the use of larger, eight-passenger taxis, the result was a significant shift of economic resources from large white-controlled bus and train companies to small black-owned and managed taxis. The result was an explosion of black small and medium-sized enterprises (SMEs)—some of which were legal, others of which were illegal.

Whether legal or illegal, these new SMEs empowered black South Africans to be their own bosses, learn management skills, and eventually employ others. Taxi owners, drivers, mechanics, hawkers, and others depend upon this industry to support themselves and their families.

[17] Opening address by Minister of Transport, Dullah Omar at the Gauteng Provincial Taxi Conference, July 27, 2000. Available at: <http://www.transport.gov.za/comm-centre/sp/2000/sp0727.html>.
[18] See photo below of Ernest Seabatha Malefane with volumes of regulation with which he needs to comply.

And yet the growth of the taxi/minibus industry has entailed serious costs—primarily in terms of violence associated with fighting over routes and vehicle safety. In the next section we discuss some of the problems and the constraints the current taxi/minibus industry faces as a result of weaknesses in the institutional environment in which it exists.

B.   PROBLEMS AND CONSTRAINTS

The taxi/minibus business provides many black South Africans with their first opportunity to be entrepreneurs. For people like Ernest Malefane, this opportunity is empowering. For others, it is a difficult struggle. What is important is the recognition that the South African taxi market is not unique; it is a market like any other, subject to the forces of supply and demand and driven by entrepreneurial innovation and creativity. In many ways the taxi/minibus market is similar to the South African market for tomatoes: there is a strong demand for these services and this strong demand signals people to enter the market and provide what people want. Many farmers grow tomatoes; many people own and drive taxis and minibuses.

The important aspect of the South African case is the extent to which this country's *institutions*
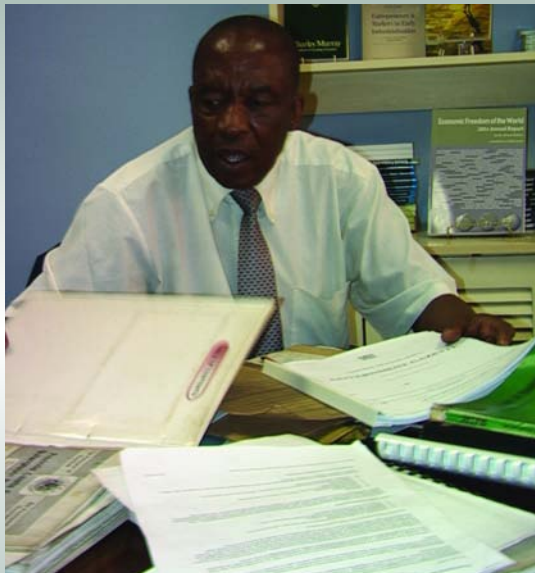
Ernest Seabatha must wade through volumes of regulation to comply with laws governing taxis

Ernest Seabatha Malefane started driving taxis in 1969. As a driver he was able to save two rand a day. His aim, right from the start, was to become a businessperson—to empower himself. By 1977, he had saved 500 rand and was able to buy a Chevelle, which he used as a taxi. Ernest could carry five passengers in this car and with the income he generated, he supported himself and his family. Over time, he has been able to buy larger cars and to employ others. Why did he choose this difficult industry over salaried work? He said: "I thought it was best to employ myself. One learns a lot by employing one's self." For Ernest, the taxi industry was a route to personal empowerment.[19]

[19] Interview with Ernest Seabatha Malefane, September 16, 2005, Sandton/Johannesburg, South Africa.

advance these entrepreneurial activities in socially productive directions. If the institutional environment supports a strong rule of law, private property rights, voluntary trade, and contracting, people will have incentives to invest in themselves and in businesses, and to act in socially productive ways (because they can rely on price signals to identify profit opportunities, they can pursue these opportunities and retain any profits they make as a result of undertaking entrepreneurial activity).[20]

However, if the institutional environment undermines a rule of law, property rights, and voluntary contracting, people will have incentives to engage in socially destructive entrepreneurship. If a society lacks a rule of law, and if corruption is rampant, people will have more incentives to steal from others, because the costs of stealing from others will be lower than in a society with a vigorous rule of law. Where property rights are weak, people have fewer incentives to invest in businesses because other people have an easier time taking their property. In a society where contractual obligations are not respected, fewer people rely on formal contracts to do business—they enforce agreements in other ways, sometimes through violence.

This fact suggests that the institutional environment in which any given market develops is essential to understanding whether the market supports productive or destructive entrepreneurship. Unfortunately, in the case of South Africa's taxi/minibus industry—to a much lesser extent than in the tomato industry—the institutional environment is one in which property rights over routes are highly contested, in which contracting is often difficult, and in which the rule of law is compromised because of harmful involvement by officials in the industry.

THE INSTITUTIONAL BACKGROUND

Throughout National Party rule (1948–1994) the South African government created an institutional environment extremely hostile to its black citizens. Through the use of legislation, regulation, and police enforcement, the government segregated black South Africans into townships or rural homelands and limited their ability to work, to own property, to move freely, and to engage in economic activities.

Laws restricting black economic activity were designed to protect white businesses by limiting competition and supplying a steady stream of black customers. Black South Africans were economically bound to the white community for both employment and for the vast majority of their consumer goods—which typically had to be purchased in "white" areas, miles away from the townships and homelands.

The taxi/minibus industry developed in this discriminatory environment. It grew and expanded to meet the pent-up demands of black South Africans to travel between distant work locations and families in rural areas, or from their homes in

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[20] See Frederic Sautet, 2005, "The Role of Institutions in Entrepreneurship: Implications for Development Policy," *Mercatus Policy Series*, Policy Primer No. 1. Available at: <http://www.mercatus.org/pdf/materials/1053.pdf>.

townships to jobs in city centers or white-only residential areas.

The Motor Carrier Transportation Act of 1930 required all people transporting goods or passengers by road for profit to have a permit issued by a Local Road Transportation Board. Because they set high requirements for the issuance of a permit, these boards proved especially difficult for blacks to work with. Under the terms of the act, taxis could not carry more than four passengers. A quota system was established, limiting the number of licenses issued each year. Some claim that over 90% of permit applications by blacks were denied.[21]

MOVES TOWARDS DEREGULATION

As a result of these government restrictions and active police enforcement of taxi and traffic regulations, there were only a negligible number of legitimate black taxis until the 1970s.[22] This situation began to change in 1977 when the National Party government replaced the 1930 act with the Road Transportation Act (RTA). The RTA allowed only metered taxis and buses to carry passengers for hire. However, it revised the definition of a taxi from a vehicle carrying four passengers plus a driver to a vehicle carrying eight passengers plus a driver. This meant that larger vehicles, such as covered pickup trucks (bakkies) could be used to move more people. The RTA also got rid of the previous quota system. These were important changes and led to growing numbers of taxis on South African roads.

Despite the positive changes, transportation regulations continued to have a harsh impact on black South Africans. One study argues that the apartheid-era public transportation system "was hopelessly inadequate, inefficient and expensive, and forced the majority of blacks to spend hours each day and up to 20% of their incomes on traveling."[23]

However, with the changes introduced by the RTA, the taxi/minibus industry began to take off. By the late 1980s it was booming.[24] The reasons for the rise of the taxi/minibus industry include the following:

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[21] Makubetse Sekhonyane & Jackie Dugard, 2004, "A Violent Legacy: The taxi industry and government at loggerheads," *South Africa Crime Quarterly*, No. 10, December 2004. Available at: <http://www.iss.co.za/pubs/CrimeQ/No.10/Sekhonyane.htm>.

[22] Louis Jacobus Fourie, 2003, "Rethinking the Formalisation of the Minibus-Taxi Industry in South Africa," *University of Pretoria*. Available at: <http://upetd.up.ac.za/thesis/available/etd-08022004-142807/>.

[23] Jackie Dugard, 2001, "From Low Intensity War to Mafia War: Taxi Violence in South Africa (1987–2000)," *Centre for the Study of Violence and Reconciliation*, *Violence and Transition Series*, Vol. 4, 10.

[24] "[B]y 1982 more than 90% of black taxis were minibuses." Fourie (2003: 33). A 1999 report from the World Bank notes: "Between the early 1980's to mid-1995, the Minibus Taxi Industry grew at a phenomenal rate. The position of the minibus industry over other transport modes was strengthened by the perception in the minds of commuters of its being a community-based industry, surviving against the apartheid authorities and without any subsidies." See Y. Ahmed (1999) "Public Transport Microenterprises – Formalization Experiences in South Africa," *World Bank*, *Africa Region: Findings*, No. 149. Available at: <http://www.worldbank.org/afr/findings/english/find149.htm>.

A typical 16-seat Toyota minibus

- The RTA provided an incentive for taxi owners to use larger vehicles which carried more passengers. Bakkies, and then minibus vans, became the favored vehicles for taxi operators. For commuters, this meant that taxis were better able to meet their needs by providing more spaces per vehicle.

- The Transportation Deregulation Act of 1988 allowed minibuses to operate legally for the first time under radius permits (these permits allowed 16-seat minibuses to operate within a particular radius from a fixed location—not along a specified route).[25] This made taxis and minibuses more convenient than buses or trains as they could take commuters door-to-door.

- Buses and trains were considered to be undesirable because they were more expensive (even though they received large government subsidies), less convenient, and managed by an oppressive regime.

- Political boycotts of buses in the late 1980s sent even more customers streaming to the minibuses. Minibuses were driven, and increasingly owned, by black South Africans and supporting minibuses meant expressing solidarity with drivers and owners against the subsidized, politicized bus and train companies.

The Transportation Deregulation Act resulted in Local Road Transportation Boards issuing

[25] Transportation Deregulation Act No. 80 of 1988.

large numbers of new radius permits. Meshack Khosa writes that "permits granted in Johannesburg rose from 401 in 1985/85 [*sic*] to 15,169 in 1989/90. The increase in the number of taxi permits (for sedans and Kombis) issued throughout South Africa rocketed by 2,639 per cent over a period of six years; from 1,453 in 1984/85 to 38,317 in 1989/90."[26] Operators with the new radius permits were now in competition with older operators who had been working specific routes. With more taxis and minibuses on the roads, there was more competition for passengers and for the lucrative routes within a radius.[27]

Throughout most of the apartheid era, police enforced the regulations for routes and taxi licensing. The few legal operators that existed could use formal channels to protect their right to operate. However, as the apartheid era drew to a close, the police did less and less to enforce these laws. There is even evidence that some police officers misused their authority to protect some taxi associations against competition—occasionally through the use of violence—because some police officers owned taxis and thus had conflicts of interest.[28]

THE RISE OF ASSOCIATIONS

The increased competition led taxi and minibus owners to form voluntary associations to organize market conditions. The result was that "associations, and in particular the chairpersons or executive members, wielded great control over access to routes or the addition of vehicles to these routes."[29]

Over time, as taxi associations exerted more control over access to routes and ranks, operators with government-issued radius permits paid associations to join a rank and to operate in certain areas. The result was that associations considered "their" routes and ranks to be a form of property. Along with this property came *de facto* rights to control use. In other words, routes and ranks were established and thereby homesteaded by taxi owners who formed associations to control the access to what they understandably viewed as their property.

However, by the late 1980s and early 90s, these *de facto* property rights were not adequately protected *de jure*. Only occasionally could the taxi operators protect this property by legal means such as relying on the court system or on police to enforce their private arrangements (often, opera-

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[26] Meshack M. Khosa, 1991, "Routes, Ranks and Rebels: Feuding in the Taxi Revolution," *Journal of Southern African Studies*, Vol. 18, No. 1, 235. In just one year, 1986-87, the number of permits issued nationwide rose from 7,093 to 34,378.

[27] Yasir Ahmed, 2004, "Transformation of Public Transport operations from informal to formal services: An Examination of initiatives by the Western Cape Provincial Department of Transport to transform the minibus-taxi industry," *CODATU* 6. Available at: <http://www.codatu.org/francais/publications/actes/conferences/codatu11/Papers/ahmed.pdf>.

[28] Dugard (2001: 4, 13-14).

[29] Ahmed (2004: 6).

The minibus to Mowbray, outside Cape Town

tors reached informal voluntary agreements amongst themselves allocating routes and areas—not formal contracts). Police, as we discuss below, were often biased in favor of one association over another.

When police enforcement was not effective, associations also lobbied against the issuance of new permits at Local Transport Board meetings in an effort to reduce the amount of taxis and minibuses entering the market. Because private arrangements in the taxi/minibus industry were not enforced *de jure*, these rights were enforced privately, by the associations, who would send "squad" cars out to patrol their areas. When an offending taxi or minibus was found, associations "disciplined" the taxi's operator, sometimes by threats, sometimes by violence.[30]

In the absence of effective, impartial law enforcement, it is understandable that taxi operators, who invested resources to develop lucrative routes and businesses, would create private means to protect these investments. Had the government been better able to enforce the *de facto* rights that emerged from the development of the taxi market, the taxi associations may not have needed costly private enforcement mechanisms.

The situation was similar to that of the radio spectrum in the 1920s in the US. At that time, the number of radio operators was rapidly expanding. The only requirement operators faced was to procure a license under the Radio Act of 1912. Many operators received licenses and, sometimes, they would use the same frequencies. This led to conflicts over the use and control of an un-owned

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[30] See "South Africa: confusion among minibus-taxi operators as regulation looms," *IRINnews.org*, September 15, 2005. Available at: <http://www.irinnews.org/report.asp?ReportID=49091>.

resource (the radio spectrum). Taxi operators and taxi associations in South Africa in the 1990s were in a similar situation as radio broadcasters in the US were in the 1920s.[31] Routes and ranks are similar to radio frequencies and they too are scarce. A tragedy of the commons takes place when no sorting mechanism exists to allocate radio frequencies or taxi routes.[32] The creation and protection of *de facto* rights of taxi associations over routes represented the natural response of the market to the scarcity problem.

VIOLENCE IN THE TAXI/MINIBUS INDUSTRY

It should come as no surprise that the real violence in the taxi/minibus industry began in late 1980s. With increasing numbers of taxis and minibuses on the roads, more owners and drivers were competing for passengers. While the government issued large numbers of radius permits, it didn't enforce the private mechanisms that emerged to sort out the access to routes. Taxi operators developed *de facto* rights that did not have *de jure* protection.

Police might not have been able to tell who had legitimate rights to operate, given the huge increase in the numbers of licenses, but often they turned a blind eye to obvious violations of the law. During this period, South Africa's police force was increasingly unable or unwilling to enforce the law in townships, where many taxis were located. Under the National Party and the ANC government, police have consistently failed to enforce laws against injurious behavior. Some taxi operators literally got away with murder. Government actions (or inaction) created incentives to engage in violence to enforce *de facto* rights over routes:

> Between 1987 and 1994 official efforts to deal with the taxi industry were almost non-existent. When violence erupted the government invariably became part of the problem instead of the solution. At best, police behaviour during the late-apartheid period was negligent. At worst, the police used their positions of authority to promote rifts between associations and to destabilise black communities. In many areas, the police were implicated in attacks or were in other ways partisan. More generally, by their calculated inaction—which included a failure to disarm attackers or to respond to warnings of immanent attacks—the police fanned the conflict.[33]

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[31] We note that the comparison between radio operators in the 1920s and taxi operators in the 1980s and 90s is not exact. In the 1920s, the radio spectrum was a true open-access resource in that no entity legally owned it. In South Africa, roads are owned by the government, but the government does relatively little to limit access to this resource. Vehicles are supposed to be registered and drivers are supposed to be licensed, but these are not onerous barriers to use. Therefore, because the government provides only a weak sorting mechanism we analogize road to an open-access resource: the pre-FCC radio spectrum.

[32] For more on the history of radio communication see, for instance, Milton Mueller, 1982, "Property Rights in Radio Communication," *Cato Institute Policy Analysis.* Available at: <http://www.cato.org/cgi-bin/scripts/printtech.cgi/pubs/pas/pa011.html>.

[33] Sekhonyane & Dugard (2004: 2).

By failing to recognize and enforce private *de facto* arrangements, the government created incentives for taxi operators to take private protective measures—measures such as the use of squad cars, intimidation, and occasional violence. Forming associations was one strategy for dealing with insufficient law enforcement. By banding together, taxi operators had increased bargaining power and could better spread operating costs, including costs of protecting resources.

Black taxi services were legalized after 1987. This transformed the industry from an outlawed business to a legal one in which taxi associations have significant power to control taxi ranks and manage routes. With government failing to enforce rights necessary to the well functioning of taxi routes, taxi associations took enforcement efforts into their own hands. Khosa describes one such battle:

> One of the most dramatic taxi "wars" occurred in March 1989 in Soweto when three taxi operators… were shot dead and twelve injured in broad day light with AK-47 and R4 rifles. The killings followed a dispute over the plying of a newly founded

Soweto-Pretoria taxi route, between the Baragwanath-City Taxi Assocation, an affiliate of SABTA, and the Federated International Taxi Organisation.[34]

Turf wars between rival taxi associations escalated and hit men were hired. Violence increased in townships and at taxi ranks. Once violence extended to the taxi ranks, shootouts killed and wounded innocent bystanders and passengers. "[B]y 1995, violence between rival taxi groups over control of lucrative routes and areas, had spiraled out of control."[35] This violence clearly indicates that the new government was unable to manage the situation and enforce appropriate laws and regulations.[36]

During the 1920s in the US, radio broadcasters could not use the same frequencies—broadcasts would be unintelligible. In South Africa, only a limited number of taxi operators can operate on a given route. Too many operators will clog roads, making it impossible to provide the service. Thus, it became crucial to develop a sorting mechanism to access routes. The associations created the *de facto* access rights to control route usage. The government then had a choice to either both recognize and enforce these arrange-

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[34] Khosa (1991: 243).

[35] Ahmed (2004: 3).

[36] Dugard argues that "[t]he continuation of violence into the democratic era was mainly a result of the success of violence as a means of extracting profits, as well as the inability of the post-apartheid government to contain the violence" (2001). But it may be more accurate to see the continuing violence as a costly response to government failures to define and enforce rights to highly valuable taxi routes.
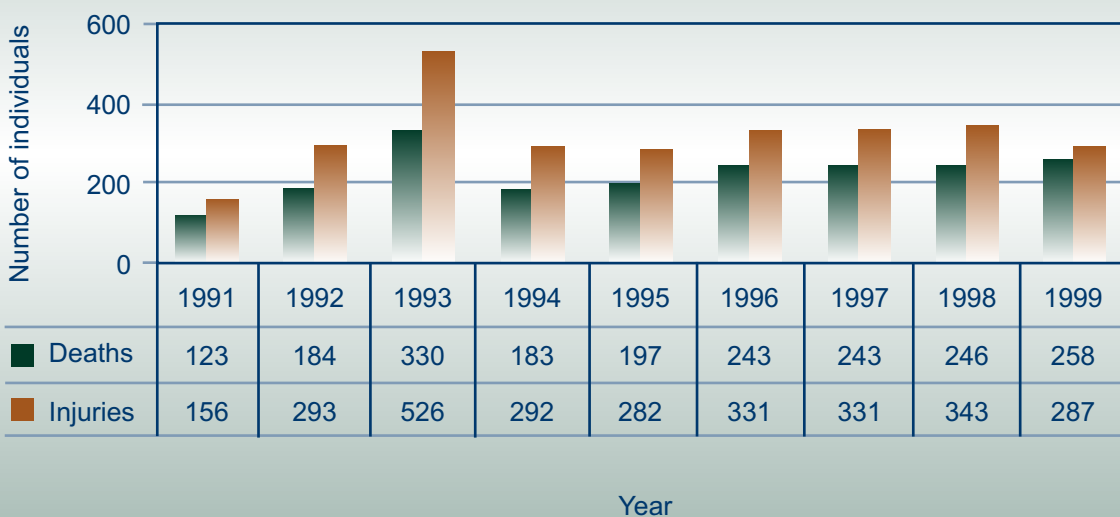
ments through the court system, or leave private parties the freedom to do so—it chose the second solution. In essence, the government transferred its monopoly on law enforcement to private parties. Taxi associations used the threat of violence and violence itself to enforce their arrangements.[37] Had rights to operate been clear and had law enforcement been effective, resorting to violence would likely have been too costly and unnecessary.

While it is clear that the violence that emerged in the taxi/minibus industry was the result of the apartheid-era policies and government corruption, it was not the result of the deregulation of the taxi market. Deregulation created the conditions for entrepreneurs to enter the market. However, as with the radio spectrum, a sorting mechanism was needed to maintain the function of the taxi routes. Taxi associations provided this mechanism, but government

TABLE 1

DEATHS AND INJURIES CAUSED BY TAXI VIOLENCE

1991-1999

Year	1991	1992	1993	1994	1995	1996	1997	1998	1999
Deaths	123	184	330	183	197	243	243	246	258
Injuries	156	293	526	292	282	331	331	343	287

Source: Dugard, 2001.

[37] For a description of taxi violence in one South African province, see "The Taxi Commission of Inquiry: Cleaning up the taxi industry in KwaZulu-Natal," 2001, Profile KwaZulu-Natal, Vol. 1, No. 1. Available at: <http://www.profilekzn.co.za/archive/vol1-no1-march2001/latest2.asp>.

failed to recognize the results of its deregulation policies.[38]

Therefore, the roots of taxi violence lie in:

- Apartheid policies that severely restricted black economic activity. By making most black taxi services illegal until 1988, the government blocked the development of a formal, legal industry. These policies gave some taxi operators incentives to work outside the law to provide a service and to protect investments they made in their business;

- Policies that led to confusion and promoted conflict over routes by creating ambiguities over rights to operate instead of recognizing and enforcing the *de facto* rights that were established by the taxi associations;

- Ineffective law enforcement and complicity in taxi violence that exacerbated problems associated with increased competition.[39]

The problems and the violence continue.[40] A culture of corruption among government officials (especially conflicts of interest in the police force), coupled with failures of both the National

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[38] Dugard, for instance, has suggested that "the roots of modern-day taxi violence lie firmly in apartheid economic and political management. The sudden deregulation of the taxi industry in 1987 formed part of the government's broader attempt to 'introduce' the market to an enclave of black South Africans who, for the most part, had no experience of capital accumulation. Deregulation was implemented as a means of strengthening the economy by giving enough blacks a stake in the system to dilute the revolutionary climate. At the same time, deregulation provided a further opportunity for the apartheid regime to complement its political strategy of destabilization: the economic stratification of black society in the open market. Taxi wars are the direct result of the rapid deregulation of transport in South Africa" (2001: 9).

[39] See "Current news, issues and concerns," *Transit Policing tpnews*, February 2000. Available at: <http://home1.gte.net/tpnews/news.htm>. This report states: "Alarmingly, corrupt police officers in Pretoria appear to have joined forces with taxi gangsters. The actions of these co-opted officers allegedly include misdirecting government property, including firearms, bulletproof vests and police uniforms, to taxi associations. In one case, this corruption resulted in inter-police conflict with an officer killing a fellow policewoman after fighting over the proceeds of illicit weapon loans. Police are also believed to have participated in actual attacks against taxi drivers and owners, including a 15 July 1997 attack at a Soshanguve taxi rank in Pretoria. Police officials have also been implicated in witness tampering, supplying the identity of witnesses of taxi-related crimes to taxi-crime boses (*sic*)."

[40] See "Taxi violence hits Jo'burg, South Coast," *Mail & Guardian online*, November 23, 2005. Available at: <http://www.mg.co.za/articlePage.aspx?articleid=257468&area=/breaking_news/breaking_news__national/>. This article reports that "[A]bout 60 people will be charged with public violence following clashes between two taxi associations in Port Shepstone on Wednesday morning, police said. Two taxi drivers were shot and a number of commuters injured in a taxi accident during a fight between the Bambanani and Gamalakhe associations, Superintendent Zandra Hechter said. The dispute began when one association prevented another from using a rank in the South Coast town, so a group of taxi men got into a taxi with passengers already in it and began chasing a group from the other association, Hechter said."

Party and ANC government to impartially and effectively enforce their own laws and regulations, helps us to better understand why taxi violence escalated and why it continues.[41]

C. EFFORTS TO CHANGE

After the historic elections of 1994, the new South African government recognized that it needed to address the serious problems in the taxi/minibus industry. The economic restrictions that prohibited black South Africans from engaging in a wide range of activities had been repealed. But taxi violence was escalating, and although many taxis and minibus operators had permits, many more were unlicensed. At this point, the government could have approached problems in the industry by formally recognizing the *de facto* rights that associations had established in routes and ranks and by protecting these newly recognized *de jure* rights in courts and through police efforts.

This was not what happened. Instead, in 1994 the ANC government began its initial efforts to re-

regulate the taxi/minibus industry. Early African National Congress (ANC) efforts included the creation of the National Taxi Task Team (NTTT). The NTTT was tasked with identifying policies to make the industry safer and more fiscally stable. It recommended that government assume a greater role in the industry. The Task Team made specific recommendations in three areas:

- Regulation and control–including limits on the number of permits issued, and a register of which taxis were operating in which locations;

- Formalization and training; and

- Economic assistance (i.e. subsidies) for the industry.

These recommendations were adopted by the national government and were intended for implementation at the provincial level through various regulations on routes, fares, and the number of taxis and minibuses licensed.

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[41] The 1999 Commission of Enquiry into the Causes of Taxi Violence in Gauteng, found that, among other causes, taxi violence could be linked to:
- The ownership of taxis, and membership to some taxi associations by members of the South African Police Services (SAPS) leading to a conflict of interest and the interest of the general public being compromised.
- Police complicity, ineptitude and inefficacy, founded upon their having a financial interest in the taxi industry, as set out above.
- The forceful collection of money from taxi operators in respect of which there is no accountability resulting in the said collection being effected for personal gain, for the hiring of contract assassins, the leasing of SAPS armaments and for the bribery of some SAPS members.

See "The Final Report: Commission of Enquiry into the causes of Taxi Violence and Related Unsolved Deaths in Guateng Province," 2000, 7. Available at: <http://www.info.gov.za/otherdocs/2000/taxi_violence.pdf>.

Responsibility for performing these tasks was placed in the hands of the associations, a conflict of interest that created incentives for the associations to misuse their powers. A number of attempts were made to ensure that illegal taxis became registered, but these efforts have largely failed. Today, roads are filled with a large number of unregistered taxis and minibuses, many of which do not conform to safety standards, are overloaded, and pick up passengers outside their territories.

NTTT efforts were followed in 1996 by a White Paper on Transportation. This policy paper recognized that South Africa's transportation system was inadequate to meet the growing needs of a wide variety of consumers. However, formalization efforts moved slowly after the issuance of the White Paper. In 1998, the government introduced its "Move South Africa" (MSA) project, designed to create a long-term (20-year) strategy to "Provide safe, reliable, effective, efficient and fully integrated transport operations and infrastructure…"[42] It was the MSA that first suggested the government consider a recapitalization program for the taxi/minibus industry.

THE TAXI RECAPITALIZATION PROGRAMME

In order to give effect to the previous findings, initiatives, and projects, the government announced its Taxi Recapitalization Programme

(TRP) in 1999. In an official statement, the South African Department of Transportation, which has primary responsibility for implementing the plan, said:

> The overall goal of the TRP initiated by Government in 1999 is the replacement of the current ageing fleet that constitute the bulk of the taxi industry with new vehicles that are safe and reliable. The programme also sought to ensure the sustainability of the industry as a business, as well as ensure its formalisation and effective regulation.[43]

The National Land Transport Transition Act of 2000 spells out the details of recapitalization. The three key provisions are:

- All taxi/minibus owners will be required to hand over their vehicles to the government, by a date not before 2008, in exchange for a government subsidy of 50,000 rand (approx. $8,000);

- Taxi/minibus operators must convert their old radius permits into route-based permits; and

- Control over taxi ranks and routes will revert to local governments.

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[42] "Moving South Africa," *Executive Summary,* September 1998. Available at: <http://www.transport.gov.za/projects/msa/msareport/msaexecsummary.html>.

[43] "Government Statement on the Taxi Recapitalization Project (TRP)," November 4, 2005. Available at: <http://www.tranport.gov.za/comm-centre/pr/2004/pr1104.html>.

This taxi would need to be handed over under TRP

These are significant changes. If they are successfully implemented they will transform the industry. For example, taxi owners are supposed to use their subsidies to buy new, bigger, safer 18 or 35-seat vehicles that are registered with the government. In part, these new minibuses will address the public's perception that minibuses are unsafe. As Table 2 indicates, motorcars have a better record for safety than do minibus taxis. However, the difference in the number of fatalities was only 17 percent in 2003. Moreover, minibus taxi safety has improved between 2001 and 2003.

While motorcars are safer than minibus taxis, in order to fully assess the actual risk, one must adjust for the risk of alternative forms of transportation. This is difficult to do. The main alternatives are public transport (buses) and walking. Though buses are less dangerous than cars, they often are inconvenient—and, as a result—are less frequently used. As one can casually observe trav-eling on South African roads, many people walk to work, because the cost of transport can be too high for many people. However, walking is, itself, risky. Nearly 40 percent of all fatalities on the roads in 2003 were pedestrians (see Table 3). This suggests that the alternatives to taxis (putting motorcars aside) are inconvenient and dangerous. The perception that minibus taxis are dangerous, while true in the absolute, is weakened once the alternatives are examined.

The requirement to buy big, new, and expensive vehicles may, therefore, have more to do with limiting competition among taxi associations and operators than it does about safety. The wealthier operators and associations will be better able to bear the initial costs of purchasing these vehicles as well as subsequent costs associated with maintenance. Only after they turn in their old vehicles will taxi owners be certified as legal operators.

TABLE 2

NUMBER OF VEHICLE OCCUPANT FATALITIES PER 100 MILLION PERSON-KMS

2001-2003

	Motorcars	Minibuses	Minibus Taxis	Buses	Motorcycles	LDV's - Bakkies	Trucks
2001	2.60	3.39	3.41	1.62	10.56	2.07	2.14
2002	2.45	2.92	2.96	1.68	9.83	2.28	1.90
2003	2.45	2.88	2.90	1.31	10.60	2.30	1.75
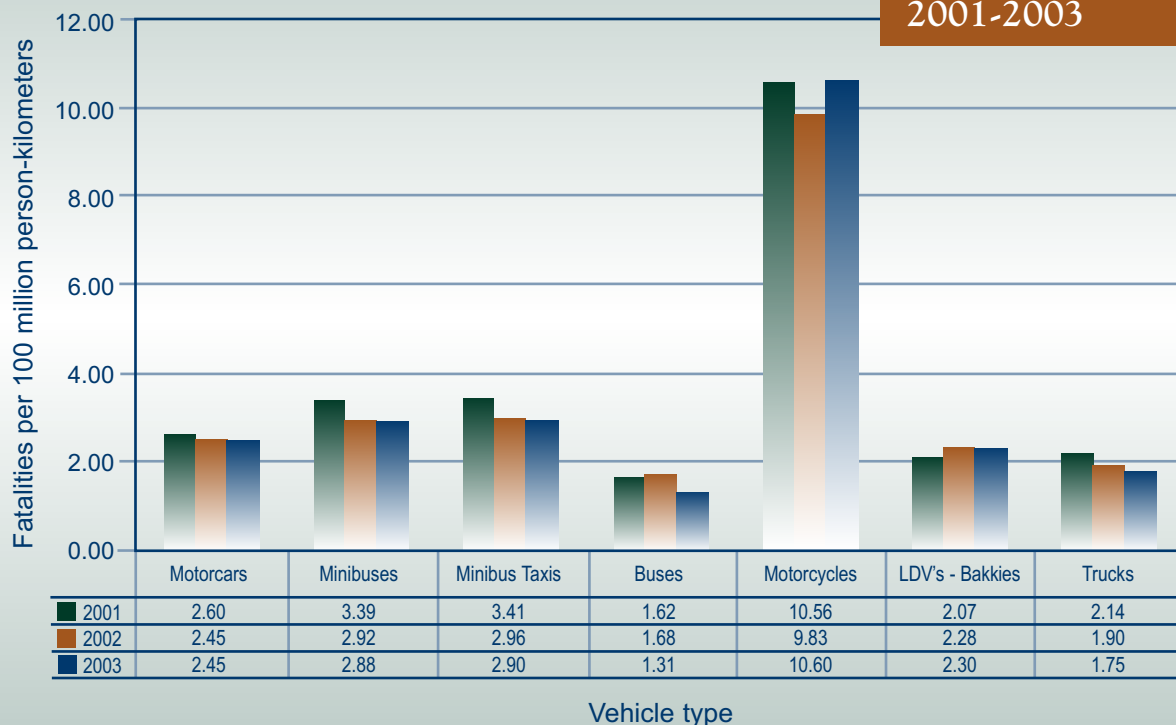
Vehicle type

Source: Author's calculations, based on data from South African Department of Transport, available at <ArriveAlive.co.za>. A person kilometer is defined as a kilometer of in-vehicle travel by a driver or passenger.

The owners will be issued new licenses requiring them to operate only on specific routes, rather than in the more flexible, regional style they now follow (currently, they take passengers where they want to go within a region, rather than following a specific, government-determined route with pick ups/drops offs on this route only).

As of 2005, the government has stipulated that taxi drivers and administration staff must be paid a minimum salary of 1,350 rand per month, rank marshals 1,080 rand, and other workers such as collectors and cleaners 945 rand per month. Under these new regulations taxi drivers are allowed to work at most 48 hours per week, and must have at least 12 hours a day and 36 continuous hours a week of rest. Drivers are also entitled to receive overtime pay, public holidays off, meal intervals, and annual leave. As a licensed, formal business, these taxi/minibus operators will, naturally, be obligated to pay taxes.

Finally, control of the taxi ranks will, under the 2000 law, shift from taxi associations to municipal authorities. This is a major development

because of the crucial role taxi associations played in establishing and enforcing a sorting mechanism to access routes. This change *must* be accompanied by active and impartial law enforcement to support the decisions of municipalities.

Some of these changes have been met with skepticism and protest from the taxi/minibus industry, though some of the changes have been embraced—especially by larger urban operators who may be better able to absorb these costs than are small taxi operators.[44] To date, implementation has been slow and ineffective. In some cases, vehicles have already been impounded and scrapped without payment.[45] The industry has splintered over support for the program, though it appears to be a *fait accompli*. Associations now seem to be actively engaged in negotiations with the government to increase the subsidy they will receive and to amend perceived problem areas, such as the payment of fares by electronic cards. It seems certain that some form of the TRP will be enacted in an effort to fix the problems within the minibus industry.

The key question for policy makers is: will this policy really fix the taxi/minibus industry?

TABLE 3

SOUTH AFRICAN ROADWAY FATALITIES

2001-2003

	Vehicle Occupant Fatalities	Pedestrian Fatalities	Total Fatalities	Pedestrian Fatalities as % of Total Road Fatalities
2001	8,329	4,070	12,399	32.83%
2002	8,066	5,076	13,142	38.62%
2003	8,009	5,269	13,278	39.68%

Source: South African Department of Transport, available at : <ArriveAlive.co.za>.

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[44] See "Radebe: Govt will not destroy taxi industry," *Mail & Guardian Online*, August 18, 2005. Available at: <http://www.mg.co.za/articlePage.aspx?articleid=248462&area=/breaking_news/breaking_news__national/> and Zibonele Ntuli, "Minimum wages for taxi industry," April 29, 2005. Available at: <http://www.southafrica.info/public_services/citizens/your_rights/update/taxi-290405.htm>.

[45] In May 2005, approximately 80 members of South Africa Taxi Problem Solving for the Poor marched against this process in Johannesburg. "Taxi-recap too slow – drivers," *News24*, May 17, 2005. Available at: <http://www.news24.com/News24/AnanziArticle/0,,1518-24_1706418,00.html>.

PROBLEMS WITH THE TAXI RECAPITALIZATION PROGRAMME

The TRP will be a boon to some taxi operators, who will benefit from a government-created cartel in taxi services. It will also be a boon to the local automotive industry, which will supply the new minibuses to the industry. However, for minibus commuters, many of whom are poor South Africans, the TRP will impose serious costs—both in terms of higher fares and fewer options, limiting the industry's impact on poverty alleviation in South Africa.

Instead of fixing the taxi/minibus industry, the TRP will likely:

- **Lead to a government-created cartel** of larger-scale taxi operators. Such a cartel will be better able to restrict service to commuters and collude to raise prices.

- **Increase fares for commuters**, some of whom will no longer be able to afford to get to work or who will be forced to seek out the cheap (likely poorly maintained) pirates who will still try to serve this market. Others may have to walk, which also involves high risks.

- **Harm small-scale taxi entrepreneurs and people in related industries**, reducing small-scale entrepreneurship in

South Africa. The requirement to purchase the new, expensive vehicles will simply be too onerous for many current operators. Some operators will go out of business, leading to:

- **Increased unemployment** in a country that currently has either a 26% or 40% unemployment rate (depending upon which definition of unemployment one uses) by making it more expensive for taxi owners to operate.

- **Provide current taxi owners with incentives to put off vehicle maintenance** while they wait out the recap negotiations, making vehicles less safe in the short-term.

- **Not solve the problems associated with informality in the current system.** Restricting entry to this market by raising entry costs will increase demand for illegal "pirate" taxis. If, as anticipated, fares on the new minibuses rise, cost-sensitive commuters will seek out pirate taxis.

The move toward greater formalization of the taxi/minibus industry is proving difficult through TRP, in part because the initiative does not address the key underlying issues that cause real problems in the taxi/minibus industry.[46] These issues include:

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[46] Further, the recapitalization program is only available to licensed taxis and does not apply to the large number of unlicensed taxis that now ply their trade on South African roads.

- The absence of recognition of the taxi associations' enforcement of route and rank access;

- A culture of official corruption;

- A serious problem of inadequate law enforcement; and

- Restrictive labor and business laws that impose disproportionate costs on small businesses.

An alternative policy response to dealing with the taxi/minibus industry does exist. As explained above, a tragedy of the commons occurs when no sorting mechanism exists to manage taxi routes. This sorting mechanism either (a) emerges from market participants interactions, or (b) is imposed as a government-administered solution.

The first solution enables entrepreneurship to take place as route rights can be traded and new taxi associations can be created. Property rights internalize the externalities arising from the overexploitation of the taxi routes, but also submit participants to the discipline of potential entry. Instead, a government-administered solution imposes a limit on the number of taxi oper-

ators thereby protecting rents by limiting new entry. Absent the discipline of the market, consumers will be worse off and small entrepreneurs will be kept out.[47]

To further a market-based solution, the government could formally recognize the *de facto* property rights that taxi associations have created in taxi ranks and routes. Recognizing these routes through legislative or regulatory action would clarify questions of ownership and rights to control this property. The government might continue to license drivers and certify that vehicles meet appropriate safety standards, but it would not impose a "one-size-fits-all" solution to address safety concerns. Once the *de facto* rights are recognized and enforced by the government, parties can trade their rights (just as with any other property rights).

Again, the parallel with the radio-spectrum situation in the US in the 1920s is relevant. Private parties who disagreed over the use of radio frequencies took cases to courts. In 1926, the circuit court of Cook County, Illinois delivered the first judgment regarding ownership rights of the radio spectrum. In effect, the market had developed *de facto* property rights over radio frequencies, which were slowly converted to *de jure* rights by the

[47] It is therefore not correct to say, as Ahmed (2004: 6) explained, that associations could be seen "as a protective measure to restrict competition on routes and areas that such groups would claim as their own." The reason why they were needed was not to restrict competition but to allocate property rights in order to overcome a tragedy of the commons.

courts.[48] Similarly, the South African government could recognize the *de facto* property arrangements over the routes and ranks and enforce them.

The government would need to couple such changes with a vigorous effort to improve law enforcement in the courts and by the police. Taxi associations would need to resolve disputes related to use of ranks or routes through contract mechanisms or via informal agreements. Where contracts or informal agreements failed or problems arose, as they sometimes do, associations would need to go to court or to arbitration to resolve their disputes. If violence ensued, the police would need to take quick and effective action to identify and penalize any wrongdoers. Obviously, this policy alternative requires a much improved rule of law in South Africa to have any hope of succeeding. However, unless the rule of law improves, the TRP is also unlikely to meet its goals of improving safety and ending violence.

The government has chosen to actively administer the taxi market by imposing new regulations that may turn out to be inadequate. The US government established the Federal Communication Commission in 1927 and along with it a new body of regulation was drafted to deal with perceived anarchy in the radio spectrum. In fact, the market was solving these allocation problems by relying on contracts and court enforcement. The US government failed to realize that the property rights system was about to be naturally extended to a newly discovered resource—the radio spectrum. Instead, it chose to implement new laws and a new bureaucracy to provide a heavy-handed solution.

> In an article written in September, 2005, the IRINnews service, a UN organization, reported:
>
> "Several associations IRIN spoke to expressed their intention of resisting government attempts to encroach on their hard-won turf... 'These routes were not created by government,' Mabaso said. 'We used our taxis as graders to make these routes; we put in the infrastructure–now there are routes that are viable, the government wants to take over. How much are they going to pay us for our goodwill?' "[49]

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[48] As Mueller explains: "In October of 1926 the Tribune Company, publisher of the Chicago Tribune and owner of Station WGN, brought a complaint against the Oak Leaves Broadcasting Company in the circuit court of Cook County, Illinois.[60] WGN had been broadcasting at 990 khz since 1923. In September of 1926 the Oak Leaves Company, which had previously been broadcasting at 1200 khz, shifted its frequency to somewhere between 990 and 950 khz, interfering with reception of WGN. As both stations were licensed by the Department of Commerce, as required by the Radio Act of 1912, the conflict had to be settled by the state court. In effect, the Tribune Company argued that it had a property right to its channel, while the defendants insisted that a wave length could not be made the subject of private control. The judge resolved the case in favor of the Tribune Company" (1982).

[49] See "South Africa: confusion among minibus-taxi operators as regulation looms," *IRINnews*, September 15, 2005. Available at: <http://www.irinews.org/report.asp?ReportID=49019>.

Taxi markets are heavily regulated in most Western countries. As the case in South Africa shows, a truly deregulated solution implies the recognition and enforcement of private arrangements over taxi routes and ranks. South Africa could become a beacon for the rest of the world, showing how markets solve problems that most people see as inherent in the taxi/minibus industry. What is clear, when talking about the taxi/minibus industry, is that changes *do* need to take place to limit violence and improve customer service and safety. But these changes must flow from changes to the institutional environment in South Africa, in particular, improvements to the nation's rule of law.[50] If problems associated with official corruption and poor law enforcement can be addressed, the South African government will be better able to turn the taxi/minibus industry into a space for productive entrepreneurship, a space that does even more to provide opportunity and poverty alleviation for South Africa's poor.

Another policy solution to improve the safety of minibus taxis is to develop infrastructure to help traffic flow for taxis. Even though taxis transport about 65% of South Africa's commuters, successive governments have failed to provide adequate infrastructure to handle increasing numbers of taxis on the road. There are few spots along roads for taxis to pull over and pick up or drop off passengers. As a result, taxis often stop in the road, creating safety and traffic flow problems. This is a special problem on high-volume routes between townships and city centers. The government, or the taxi associations (if they had *de jure* rights over routes), could invest in widening high volume roads and in creating more pull-off areas for taxis.

CONCLUSION

The taxi/minibus industry remains vitally important in South Africa. It has empowered many black South Africans over the years, provided countless jobs, and helped commuters to go where they need to go more efficiently. The taxi/minibus industry has provided, and continues to provide, one important means to alleviate poverty in black South African communities. The challenge ahead for policy makers is to take the necessary steps to create the appropriate institutional environment in South Africa so that taxis and minibuses can compete in a normal market process, safety levels are improved, and violence is drastically reduced.

If officials want to fix the taxi/minibus industry they must not forget how this industry has been

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[50] According to the World Bank's Rule of Law Governance map, a component of the Bank's Governance and Development Map, South Africa scores in the 61st percentile of nations in terms of rule of law. This is a much higher percentile than some other African nations (Angola scores in the 7th percentile, Zimbabwe in the 4th percentile), but much lower than nations such as Norway, which scores in the 98th percentile, Australia, which scores in the 96th percentile, or Spain, which scores in the 85th percentile. Improvements on this front are essential. See GRICS: Governance Research Indicators Country Snapshot, World Bank. Available at: <http://info.worldbank.org/governance/kkz2004/worldmap.asp#map>.

able to create benefits for consumers, related industries, and the economy overall: through the efforts of taxi entrepreneurs. Reforms that stifle small-scale entrepreneurship and that leave a poor institutional environment in place will not fix the problems that pervade the industry. The taxi/minibus industry can continue to provide an important economic stepping stone for poor South Africans only if the South African government improves the rule of law and, in turn, the nation's entrepreneurial environment. This means that the government must continue to work to:

- Remove artificial limits to productive competition in this market;
- Improve official accountability and impartial law enforcement efforts; and
- Stop hindering small-scale entrepreneurship.

If the government wants to fix the taxi/minibus industry, fixing the background institutional environment is essential. Creating a stronger institutional environment should provide taxi owners with greater incentives to formalize and internalize the costs of customer safety. This would make taxis even more appealing for the millions of low-income South Africans who rely on this form of transportation day-in and day-out.

However, in addition to focusing on improving the institutional environment, the South African government should avoid creating unnecessary obstacles for taxi entrepreneurship. In its current form, the TRP will restrict entry into the taxi/minibus industry by imposing costly upgrade requirements. Small-scale operators will be dis-

proportionately harmed by these requirements, and many may go out of business. The likely result is increased unemployment, continuing use of pirate taxis, and a government-created taxi cartel.

The government and the private sector have identified the major problems in the taxi/minibus industry, but not the best policy solution. Apartheid-era restrictions and post-apartheid policies have created an environment in which associations have become excessively powerful; violence is part of the business, and consumers face difficult transportation choices. Now, political leaders face a difficult choice: to enact the Taxi Recapitalization Programme, that may be acceptable to the associations (because it essentially buys the big operators off) but that concentrates the costs on voiceless, low-income workers and commuters; or bear the consequences of changing the *status quo* by improving the institutional environment in the country. The latter strategy would make it easier and safer in the long run for *all* entrepreneurs to do business, and it would better ensure that customers have the freedom to choose the service that they value most.

Much remains to be done to improve the taxi/minibus industry, but efforts such as those outlined above should lead to the development of a strong, peaceful, and safe taxi/minibus industry—one geared towards serving commuters, and one in which taxi entrepreneurs are free to peacefully pursue their own economic well-being which, as we have seen, creates jobs and a host of related benefits for their communities.

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