UNIVERSITY OF HOUSTON
ORAL HISTORY OF HOUSTON PROJECT

Interview with: Tom Mitro
Interviewed by: Jason Theriot
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Transcribed by: Suzanne Mascola

TM: I got my masters in economics in 1973. It was a time when I guess the economy was low and it took me about 6 or 8 months to finally get a job and I got one at Gulf Oil then in February of 1974 whose headquarters were in Pittsburgh. Then, they right away sent me to Oklahoma for about 6 months on a training assignment. I came back to corporate headquarters where I did some work on economic evaluations of mostly international activities and primarily in West Africa. And then, in August of 1975, I moved to Houston and I was here for about 7 years or so at that time.

JT: Still with Gulf?

TM: Still with Gulf, yes, doing a variety of things: economic evaluations and sort of became a financial manager for the international headquarters. And then, from there, moved to Nigeria in December of 1982, to Lagos.

JT: Did you peg the oil industry as you were going through your graduate work or was it vice-versa; they came and recruited you?

TM: It was really neither. I did not peg them and at the time, it was mostly that of desperation. I had applied to about 300 or 400 different businesses, universities for doing some teaching; I was interested in doing some government work. My background is more of sort of urban economics I guess you would call it. My graduate paper was on the low income housing market. So, it was not really focused on that at all. So, it was just a matter of they happened to have an opening and my name came up. So, they were not out recruiting me at the time. They were not doing that.

JT: Did you know anything about the oil industry?

TM: Nothing at all. I knew about gas stations. I think Pittsburg had the very first gas station in the world. I thought it was about gas stations and I did not understanding anything of what they were talking about.

JT: There was the Drake Field.

TM: And Titusville, yes.

JT: The first oil well. That is interesting. So, what were your first impressions of Gulf Oil and then obviously moving into Houston, which, at the time, was not the energy capital, but was building up to be that. What was your impression of working in that corporate environment?

TM: Well, it was interesting because it was in the early 1970s. I had worked quite a bit during undergraduate and in high school, but mostly manual labor, so I had no experience with the corporate world at all. So, not only did I have to learn the corporate world but, like I said, the oil business, and it was mostly focused on West Africa at the time, even right from the start. So, some of the countries, I did not even know the names of them at the time. It was quite an adjustment. And then, moving to Oklahoma – I had never really been more than 150 mile or so from home until that time, so that was an adjustment as well. But it was all good. I mean, it was one of those times in your life when you go through a lot of change. You learn a lot. You do not realize it at the time. Some of it you kind of resist or resent but it was all very . . . I am glad for the opportunity now in retrospect. At the time, I was not too keen about going to Oklahoma and driving around with roustabouts and doing some manual labor. You thought you had gone to school to avoid that but they were the best experiences I could have had, really.

JT: So, for the 7 years that you were in Houston working on international economic balance in West Africa, were you also doing some traveling to those countries?

TM: Yes, I started traveling to West Africa, usually about twice a year in, I think it was 1979 or 1980, and I usually made these month long trips because at the time, it was hard to really get around there. It still is, but to Nigeria and Angola, Gabon, Zaire and now the Congo, Cameroon. So, it was usually about a 5 or 6 country trip. And then through the UK, because I also had some responsibilities for UK and Indonesia as well. But the focus was West Africa.

JT: So, Gulf had prospects in all of those areas?

TM: Oh, yes. They were actually probably the most international of the oil companies at that time because, you know, the companies had been through, in the early and mid 1970s, a real revolution. They had been nationalized in the Middle East, Venezuela, Ecuador, Columbia, and beginning around 1974, 1975, the governments in West Africa started taking a participation interest, which was typically anywhere from 40% to 60% that they started taking on. So, that really changed the companies and where they were located. And fortunately, Gulf still had a lot of focus in places like West Africa, so the governments allowed them to keep their interests. They took some of it but they still allowed them to operate there and that was really . . . West Africa, in the past, had been looked at – well, that was kind of a downside; that was a region that was not producing a lot and that had perceptions of political risk, so it turned that into an asset really at that time because they acted a lot more reasonably, if you will, from the company's perspective than governments in the Middle East and South America.

JT: Were you married at the time?

TM: I got engaged on the day I was hired at Gulf and the two are related because I had been a poor graduate student and unemployed for about 7 or 8 months, so that was what I was waiting for to get engaged.

JT: And you wife is from Pittsburgh?

TM: Yes, she was. She went to school at Duquesne also. That is where I met her. She has traveled around with me all these places.

JT: Do you have kids?

TM: Yes, I have 2 kids. I have a son who is an attorney. Both kids were born in Houston. But he is the one who has really done most of the work in founding this nonprofit. He is living in Germany now with a girl he met . . . he quit a job at a law firm to do this without pay for the last year or so. I have a daughter who is married, lives in D.C. She went to Tulane, was married in New Orleans... married a guy who is from New Orleans. They are living in D.C. now. She got her doctorate in physical therapy a couple of years ago. So, you know, they are both great kids.

JT: So, when you moved to Nigeria in December of 1982 that was still with Gulf?

TM: Yes, that is right, and it was 1984 or 1985 that it was actually effective in mid 1985 that Chevron acquired Gulf and actually, I moved back from Lagos to the U.S. to San Francisco. So, I had to have another big adjustment – moving from Nigeria to the U.S., moving to California, and then also starting work for Chevron on basically the same day.

JT: So, did your family move with you when you went to Nigeria?

TM: Oh, yes. They were every place. Nigeria. They went to school there. If you ask my son what his hometown is, he still says Lagos because he has lived longer in Lagos than any other place in his life.

JT: O.K., so walk me through the decision that you made and that you and Gulf decided on or maybe Gulf said "this is where you are going." Walk me through that whole decision process and when you actually moved December 1982 and kind of give me a broader context of what was going on in the region at that time, maybe why Gulf Oil sent you there, and what was going on with the company in general.

TM: Right. Well, I think as I mentioned, this is still in the era just after nationalization in a lot of places and the government is taking an interest, equity interest, in West Africa. And as part of that, because of the way some of the power of OPEC and sort of the balance of power that shifted away from some of the oil companies to the governments, the host governments, and part of that shift in addition to higher prices and increasing their government take was also the fact that they took a lot more control of how the oil industry operated, not only forming these national oil companies but also, at least in Nigeria, reducing radically the number of expatriates who had worked there; in other words, requiring more Nigerian employees at higher levels. So, they had done that so that in some major groups like the finance department there, there were no expatriates anymore and because there was still a lot of inexperience among some of the Nigerians, they started having some real problems there. So, the company was able to negotiate something with the government to get an expatriate to come in to the finance department there and I happened to be the one they selected for that. So, it was a challenge because it was an interesting job. Since I traveled there, I knew a little bit about the place and the operations, and I thought Nigeria was a fascinating place. Difficult place, but fascinating. The culture, just the energy there, I have never seen that anyplace else in the world. It took a lot to convince my wife of that but, you know, she was willing to try it and so it was not without its difficulties but it worked well. We enjoyed it.

JT: Well, it sounds like just from meeting with you on campus that it was certainly a life changing event for you and your whole family.

TM: Oh, yes, it definitely was. We had to learn a lot of things. You had to really challenge yourself as an individual and as a family to learn to adapt, to learn to live with some really difficult situations, and not just for yourself because the company tended to help with that but just being around people that . . . there was a level of poverty that I just had never seen anywhere before. People living in conditions with no power, no water, no sewerage, hardly any food, with bunches of kids and no jobs, and no support from the government, none whatsoever. Just seeing what human beings could do in terms of adapting to those types of situations was really eye-opening.

JT: So, in Nigeria, was Gulf . . .give me a rundown just briefly on where they were exploring and producing. Was it more the river areas in the marshes or was there any offshore activity going on?

TM: It was primarily offshore. Gulf had discovered the very first and got onto production of the very first offshore field in Nigeria called Ocan and they started in I think it was about 1966 or so, 1965. So, about 80% to 85% of what they had was shallow water offshore, Niger Delta, but they did have about 15% or so that was in the swamps as it was called. Some of it sort of butted up against where Shell was, but Shell was more east of where we were. So, we were in there, right along there in the coast if you will, in the swamps.

JT: So, about 75% of offshore; how deep?

TM: Maybe even more, 80%, 85% offshore, yes. It was in up to maybe 100 to the most, 200 feet of water.

JT: Twenty miles maybe?

TM: Probably not even that. You could see virtually all of it from the shore.

JT: O.K. And about how many tracks or leases, and also, how much daily production?

TM: I mean, even though they had separate, as they called them, OMLs - oil mining leases - they were all contingent, you know, next to each other, so they really were treated as one and they were treated as one for tax purposes and regulatory purposes. So, there was maybe about 6 or 7 OMLs as they called them but they were all right next to each other and treated as one. And the production, at that time, was probably just under 400,000, about 400,000 barrels per day combined.

JT: Now, how did that compare to maybe well, let's not say Shell because Shell probably, I would imagine, had a much larger stake.

TM: There were over a million . . .Gulf was usually always tied second if you will with Mobil. Mobil was, I think all offshore, a little further south of Chevron's production and they were about always 350 to 400 or so. And then, Shell usually what they produced was usually over one million barrels per day. And then, there were smaller ones that were there like Agip and Phillips, but they were all . . . Texaco was probably about 80,000 a day and the rest were much less than that. So, they were the big three: it was really Shell, Chevron and Mobil. And Total Elf rather was also there but theirs was fairly small, it was less than 100,000 a day.

JT: In the end, the NNPC had 60% of this?

TM: Initially, they took on 55% in 1974 and then in, I think 1975, they took on the extra . . . moved it from 55 to . . . so, it was 1979, to 60%. So, yes, the time I was there, it was 60% interest they had and still is.

JT: And the infrastructure was, pipe it into either a terminal or to a refinery and then export the oil you find?

TM: There was sort of a terminal area called [Port] Escravos, which is an area there – actually, it is the Portuguese word for slaves so that tells you how it got its name, and

Gulf had a base there and they had a tank farm of about 8, I think at the time, tanks – each storage of about 500,000 barrels and then they would just bring it in there to treat it and store it and have a line that would go offshore to an offshore loading buoy, so it was all exported. It was not refined at all and the gas was flared or reinjected, but there is no gas utilization other than that.

JT: O.K., so whatever Nigeria refined was coming from Shell or from one of their own operations?

TM: Some of the NNPC share would go to some of the refineries in the area but most of the refineries were further away from that area. They had a refinery in Warri, one in Port Harcourt, one in Kaduna. I think those are the main ones. So, sometimes what they would do, they did not use our production for that, they used the Shell production because it was closer – they did not have to send it as far along a pipeline. Occasionally, they used some of the NNPC production from our share, but it was mostly the Shell production that was used for that.

JT: So, one thing that I am still not quite certain on how this works. If the NNPC of the federal government has 60% share in this, which means 60% of the production?

TM: Right.

JT: If it goes and sits in a tank farm and then is transported to an offshore buoy and then pumped into a tanker and sent to market, how is that 60% tracked and how does the government get revenues from those sales?

TM: Right. The operator, in this case, Gulf, tracks the production, does all the typical international standards for measuring production. They measure it offshore through meters. Then, the ultimate measurement is at the tanks, gauging the tanks, so that is how they determine the production. At the tank farm, yes. And they allocate it back to the individual fields through the meters but the meters are not as accurate as measuring it at the tank. They just measure sort of flow rates so it is . . . and then, once they reach the tank farm, each . . . Gulf was entitled to sell 40% of it to whomever they wanted and NNPC could sell its 60% share to whomever it wanted. Then, Gulf as the operator of the terminal, would, you know, get notices of the tankers that were nominated to come there and their only role was to really make sure that the nominations were not greater than what they were entitled to and that the tankers that arrived were in good safety order. And they would sometimes reject them because they had not passed inspections or whatever. And then, they supervised the loading to make sure it was loaded properly. And then NNPC is the one that arranged for the tankers for its share and they arranged for the market for their share of the oil. All we knew is who managed the tanker, who owned the tanker. We did not know who their ultimate customer was particularly. All they had to do was say pass it on to the ship's captain, he signs it, he is taking that much oil on board. We know for what price they sold it.

JT: Right. I have some questions about that whole operation. Maybe you can enlighten me. I will go down the list because I think that maybe that was one of the problems, was having this third party negotiation or actually selling and then finally distributing their oil. So, let's hold off on that for a little bit. So, tell me about living in Nigeria and your whole cultural experience, maybe, say the first week or so that you were there.

TM: Well, the first week or so, it was right before Christmas. The company had promised we would have some of our shipment there in time but of course that did not happen so we had to explain to our kids that Christmas did not initially happen on the 25th of December in Nigeria even though it did and it was a big holiday there, but that for expatriates, it was at a different time. We had a few small little things to give to them, but there was a tiny little tinsel Christmas tree the company had gotten for us. But we had virtually nothing with us other than what we had in a couple of suitcases. Actually, the third or fourth day we were there, we were robbed. We did not have much for them to take. I felt sorry for them. It was kind of a funny story because they must have come up to our bedroom. I did not see them but they stole my pants. They were on the dresser, I guess. The theory was if they stole my pants, if I saw them, I would not run after them because I would be too embarrassed to go in pajamas, I guess. And they took my briefcase but these poor guys . . . it was a fairly full briefcase. They must have thought they struck it rich but all it was about 30 thank you notes my wife had written to . . . we had a going away party in Houston from neighbors and friends and so she was most upset because they stole her thank you notes. So, in a way, it was frightening, but there was no harm done to us and it was, in a way, rather innocent, this idea of them stealing my pants. But they did also steal a little Fisher Price tape recorder that we had for our kids to play Christmas songs on, so that was disappointing. So, we did not have Christmas music!

It was funny because at the time right before that, this movie, "Roots" based on the Alex Haley book had been shown in the U.S. and it really changed a lot of peoples' perceptions about Africa. It was one of the first real things about Africa in the public media in the U.S. My wife had seen it and she kept saying, "It is like I am being in the movie Roots," because all hours of the day or night, there were hundreds, thousands of people walking the streets in Lagos, because they have no transportation, so they have got to walk miles and miles to get to jobs, to get back home. And so, you could look out your window, even in the residential area, and see hundreds of people walking by even at 3 in the morning. Also, even though I grew up in kind of a mixed neighborhood in Pittsburgh, you know, you had some jobs where I was one of the few non-black or other nationalities working there – you go there and your eyes just adjusting to seeing, for one, a lot of people out all the time and getting used to the idea that you are very much a minority. That changed a lot of perceptions, too. You had to get used to the idea that you were not part of the dominant culture, that you were the one that stood out and was made to feel sometimes a little bit . . . I do not know if nervous was the right word but you just felt ill at ease. But after a while, you start to get Nigerians. They notice you. You go out for a walk and you get 100 kids walking after you just because it is such a big curiosity. I used to go out running. They had this word in Nigerian for a white person; they would call them a "webo" [oigbo]. And so, I would get these kids running after me saying, "Webo [oigbo] giant," you know because I was big and tall. So, it is kind of funny to experience that.

JT: How would you spell webo [oigbo]?

MT: I think it would be something like oigbo. The g is kind of just guttural.

JT: You are kind of tall.

MT: 6'4", yes, but I was heavier then even so to the kids, I was a giant and curiosity. But people were very welcoming. They looked at it as an obligation in their culture to welcome a stranger, a foreigner or a visitor, and we were obviously that because we were not Nigerian. That much was obvious to most people. So, you right away felt at home there. And having to learn how to just go to the market. Most of the food was very . . . at the time, the government ... this was part of the later discussion, was trying to control everything: the price, the currency exchange rate, their ban for imports on virtually all food and even magazines, newspapers. So, as a result, you really had to live on the local market at the time. So, that meant going out to open markets and negotiating. You know, we never had to negotiate . . . everything you bought, even if you bought an orange, you had to negotiate for the price of it. So, learning how to do that. It came pretty quickly actually but that was a big adjustment. Just getting around the time the company did not provide cars or anything like that for us, or sometimes we would use the taxis and that was a wonderful experience. Sometimes a 5 minute ride would take you 2 hours to get there because they were picking up other passengers and usually when you got a taxi in Nigeria, you were not the only passengers – it was open – so you could end up having 6 other people jammed in the car with you. So, it was interesting. Now, the companies have changed all around. They protect people in a way that is better for security but in terms of the learning experience, learning the culture and learning to adapt, I think it is a bit of a pity because people now they are sort of protected from that. Like I said, I am sure it is safer, but you just do not learn as much as immediately about the Nigerian culture, I think.

JT: What would you compare Lagos to, to another major U.S. city as far as maybe size, geography? Is there something you can compare it to?

TM: Well, right now, the size of it is probably 15 million to 20 million people. At the time, it was smaller, maybe 6 million, you know, so . . . it was on the coast, it was hot and humid.

JT: So, like San Francisco maybe?

TM: I would say probably more like a Houston in a way except if you moved Houston just a little bit closer to the coast. Maybe New Orleans if you made it bigger. Probably more like a New Orleans, I guess, in that way because it was coast, it was very hot and humid, rainy; well, certain times of the year. They had a dry season also. A very mixed culture. Even though it was mostly Nigerians, they were from all over Nigeria and they viewed themselves as very, very different cultures. At the time, we had an office downtown. On Friday afternoons, they always had funerals and they would have just like in New Orleans, people dressed up in these more African outfits but playing horns, trumpets, accompanying the funeral, people dancing and swaying. And so, right there, I saw where some of the New Orleans culture came from was right from there. I mean, it was just kind of open your eyes, say wait a minute: I am seeing where a lot of U.S. culture came from. And Nigerians were . . . I think there were probably more Nigerians that became slaves than almost any other country. As a matter of fact, Nigeria before the names of the colonies were established used to be called the Slave Coast. So, it was really the heart of where a lot of American culture came from.

JT: So, you worked downtown?

TM: Yes.

JT: Skyline?

TM: Well, it was sort of a skyline. It was this old decrepit building. Maintenance was a problem there for everything so most of the time, we had no power, toilets did not work in the buildings, the elevator did not work. And so, you had to have your windows open and the noise from the street was just incredible. Every day at about 3 o'clock, they would release the afternoon edition of the newspapers and people love reading newspapers there. They would have these kids selling them and they all had these bicycle horns that would go around and honking the bicycle horns. So, from about 3 o'clock to 4 o'clock, you could not hear yourself think most days because of the bicycle horns. Downtown was probably one of the most densely crowded areas of any city in the world, even more than Delhi and others like that. I mean, it is just so densely packed there during the day that you can barely walk the streets.

JT: What are people doing?

TM: Visiting someone. Visiting a friend or relative. A lot of them work there or a lot of them are either running errands. There is a lot of underemployment or unemployment. And so, it is a tradition there if somebody is working, anyone else in the family, even cousins or nieces and nephews, it is fair game for them to come and sort of put the touch on them, ask them for money for school fees or a loan or whatever. So, in our offices, people who were employed were considered ones that their family members went to for money. And so, sometimes the only time they knew they were going to be in one place was when they were working. So, it was not unusual to go to somebody's office and see

7 or 8 relatives in there waiting to talk to them to ask for money which did not really lead to a very productive workplace but that was the reality of life there.

JT: How many Nigerians did Gulf employ in that office and maybe in general in the actual field?

TM: In the office in Lagos, we had a couple of buildings. That was the main one I was at but there were a couple right near . . . we had some floors. It was probably maybe 1,000 Nigerians at the time, maybe about 10 or 12 expatriates. Maybe not even that in the offices in Lagos. Maybe there were only about 8 or 9 of us. Then, in the field locations, which was primarily in the Escaros area offshore, probably another 3,000 or 4,000, I guess. That is not counting contractors. A lot of people are hired on a contract basis. So, it was a big . . . I mean, for being probably the second or third largest company in Nigeria, it did not employ a lot of people because at the time, Nigeria's population was about 80 million, I think, 70 million to 80 million.

JT: That is interesting. So, second largest oil company and you are talking about probably no more than 4,000 Nigerians are employed?

TM: Yes. They were the second largest company full stop, not just oil company, in terms of revenue and assets. And that is one of the parts of the difficulty in the oil business in the third world is that it just does not employ a lot of people. It is very capital intensive, not labor intensive.

JT: I guess that’s why those jobs are so highly sought-after.

TM: Oh, yes. Right.

JT: I wanted to ask you a little bit about what we refer to as the "rentier" mentality or rentier economy. Did you know about this kind of phenomenon before? Did you see it when you were there the first couple of months? How can you describe your experience of what you saw, what we refer to as the rentier mentality of the Nigerians?

TM: You know, I was familiar with the concept of what we used to call "economic rent" because I was doing economics for the oil business, which was basically we looked at it as how much extra the government could charge in terms of taxes for the oil business as opposed to sort of the normal corporate tax rate. That is sort of how we defined it, you know, even going back to the concepts of David Ricardo who had established this concept a couple of hundred years ago. So, I was very much aware being in the financial area and doing economics that the government was extracting this higher, if you will, "take" from that industry. But what impact it had on the whole culture and the government and governance, you know, was not always that clear. From abroad, you know, you really look at it as oh, well, Nigeria is kind of screwed up, it has a lot of problems, it is not managing its, the oil, sort of resource, very well. So, you know, you looked at it more of a matter of incompetence if you will or lack of experience. Once you got there, you started seeing some of the barriers they were facing and the impacts that oil was having. I mean, there was a big rise up in prices in 1979 and so the government had . . . at the time, they were building Abuja, this brand new capital city, which was intended to replace Lagos and has in certain many respects, but the incredible waste on that. I had some friends who were architects working there and talking about all the waste and corruption associated with that. You saw people moving into Lagos looking for these jobs in the oil sector which really were not there and so people becoming whatever – drivers or greeters at the airport, if they could even get that. So, you saw a lot of unemployment, people coming there thinking there were riches in Lagos. Certainly, there were riches there, but it was not in the form of jobs for the average person. And so, you were starting to see agriculture atrophy. Nigeria used to be one of the best agricultural places in the world, and you are starting to see certain things not produced there anymore. You saw a lot of evidence of these concrete scandals there. A lot of it was they were importing cement for building these buildings in Abuja, for the most part, and for certain housing in Lagos, but once again, people in the government got involved, over-ordered the cement because they were getting a 10% kickback on it. They would order these vessels to come in and they did not have a big enough port facility so they would be stuck out . . . cueing up offshore, you could see them and, of course, the cement does what it does when it is stuck in a humid environment for months on end. Some of the ships were there for 1 year. Just turned to concrete inside and they would have to sink the ships offshore because they could not do anything about it at that point. So, you had seen this phenomenon. There was also at the time rice scandals because the government was trying to control the price of rice in the country. But because agriculture had atrophied, there used to be a big export of rice and now, they had to import it. So, once again, some of the people in the government were getting these big kickbacks on rice. The government would import it. They were selling it at one-tenth of world market price in the country so people would buy up all that and then reexport it and make a fortune. So, you saw these phenomena happening; it was a sign of that rentier economy, you know, that there is just no other investments there, that people in government with influence and power turned to corrupt activities, the government trying to say, well . . . one of the ways they tried to pass on the benefits of the oil industry is by controlling prices on petroleum, rice, things like that. And the same thing happened with petroleum. They kept the price on petroleum refined products. People in the government would buy them all up and ship them to the next country where they got full market price for it. So, you saw these attempts to somehow pass the benefits on, turn into corrupt activities, and so as a result, there were shortages of these items and the so-called black market prices for them were as high as the international prices anyhow, so all that happened is it turned that into corruption. The same way they tried to control the exchange rate. So, as a result, no one could exchange naira for dollars unless you paid significant bribes or paid at black market prices. So, the people in power in the government could acquire dollars at these controlled rates and, of course, resell them at market rates. And so, all these attempts by the government to control the economy, to try to pass on benefits by limiting prices and exchange rates, I think it took them a long while to figure out you cannot control the economics of the situation. And all that was happening then is it turned it into corruption. And then, it became, you know, the more and more that happened, the more embedded corruption became. A lot of it emanated from this idea to try to pass on benefits by lowering prices and the government trying to establish central control of things. So, it was subverted into corruption at the highest level.

There was one minister, Deco his name was, who was famous because the U.K. government . . . he was in the U.K. and I guess he was the one benefiting from these rice reselling scandals and there was word at the time that he was worth one billion dollars.

So, the British government . . . he tried to bring sacks of money back to Nigeria in some diplomatic pouch and the British government arrested him and put him in jail which precipitated a crisis. So, you know, all these things became fairly public knowledge.

JT: Was this endemic of the legacy from independence or was this part of policy vis-a-vis what was called the third or the fourth development plan? I mean, these were specific policies that were implemented, but was it a policy as a whole geared towards one specific 5-year plan?

TM: Well, I mean, I think the legacy from colonialism was that, you know, the British, the way they managed their colonies, they stayed on the coast, for the most part. They had people in the interior who managed affairs, the so-called "indirect rule." But a lot of it was a trading mentality. And so, they dealt with these so-called middle men. You see it in the Delta. It was quite clear: the palm oil middle men. And they controlled the trade in the interior and they would quite often cheat the palm oil growers and tell them they got a lower price, and the commissions they got were very high. But the British did not mind because they were getting ... they were not having to deal with the messy politics and logistics of working in the interior and so, in a way, the trade system encouraged the corruption and the people not being honest with those they are dealing with. I think the government, you know, they are still influenced at the time by some of these centralized controlled economies like the Soviet Union, you know, those concepts that somehow the government could intervene and dictate how the economy worked. And so, they had these 5-year plans and things like that. And it was all predicated on price controls, government controlling imports, controlling exchange rates, and that perhaps could work in a state that had an efficient means of enforcing them, but Nigeria had nothing like that. And so, not only could they not force these things, some of the attempts they had, like they created the death penalty for currency trading or petroleum bunkering, as they called it, when you resold the controlled product at market prices, but they had no other way of enforcing it, because they had almost no income tax tracking, no personal records of people. So, like I said, I think it was predicated on these government centralized control policies, but then all it did was it allowed people of power and influence to take advantage of that on a massive scale and to acquire something at a low price, resell it at market price, and either make the money that way or grant the right to somebody else to do that if they worked at, say, the central bank and then collect a fee for that, a personal fee.

JT: So, I mean, we can see a little Marxist influence, a little socialist influence, but really, the government was trying to implement a fast-track policy to help improve the economy, to help improve the development of this developing nation and just to have the structure of a long, timely experience to make those 5-year plans very beneficial?

TM: I think that is right. I mean, part of it was this . . . I do not know if arrogance is the right word for it . . . it is probably too strong of a term but this idea that somehow, you could subvert the economic forces to turn the country around, and I think that was the hard lesson they learned throughout a lot of that, that just does not happen. You cannot make that happen.

JT: Invisible hand.

TM: Yes.

JT: Tell me a little bit about the Nigerian middle class.

TM: The middle class, as such, typically are either government employees or oil company employees. They are the ones that have . . . education, actually from what I observed in Nigeria, the education levels were probably the highest of any country in Africa or perhaps South Africa. There is a keen focus there. Everyone I met there was trying to get a course to study something. Somebody that worked in the file room was taking university courses at night and people . . . that was a huge driver to people there, so that is one thing, one of the real positives about Nigeria that impressed me – everybody was studying for something – drivers, people doing cleaning in the offices were all trying to take a class in something. And so, as a result, there was a clear – from an education standpoint, a clear middle class there, you know, but that did not translate into being middle class from an economic and social standpoint and that was part of what created some of the problems there, is that . . . so, of those people that had education, a few of them could get jobs with the oil industry or government. There were people who were entrepreneurs there. There was a very strong entrepreneurial spirit in Nigeria and quite often, you would see that; people in the construction industry, retail, fishing, maybe even agriculture, but once again, that became subverted – this part of the rentier approach was that to get any contract of any size, you had to go through the government. It was only the government or an oil company that had contracts that were worth anything. So, if they were going to the government, you had to pay somebody to get the contract. So, this is how even the private entrepreneurial class was subverted into corruption because they could not survive, their businesses could not thrive in any way unless they had contracts from the government and that meant, in effect, they had to be participants in corruption to do that. So, that middle class of entrepreneurs, if they succeeded, became, you know, wealthy because now they are getting these big government contracts, quite often not because of merit but because of corruption, so they became very rich and as a result, the entrepreneurs and the middle level atrophied. They just could not survive because they were not getting government contracts.

JT: So, in other words, each entrepreneur was a small business owner really?

TM: There are a lot but they tend to be . . . you know, somebody owns a small stand that sells drinks or food or something like that. There were a few anomalous ones like . . . Nigeria had its share of religious in addition to regional ethnic strife but, at the time the Moslems were a very pragmatic group because I remember even the number . . . if somebody has been on the haji to Mecca and the haji . . . haji so and so's liquor store there . . . so they were very pragmatic about their religious . . . they were able to separate their religious beliefs from business, if you will. So, you saw a lot of those kinds of things. But it was very much a one person kind of . . . it maybe a couple of assistants' kind of businesses as opposed to . . . and then, there were the big mega businesses but they were primarily government contracts in the few select areas.

JT: Nigeria joins OPEC in the early 1970s, maybe 1971, early 1970s, tell me, in your opinion, Tom, in your years working there and your years researching there before you moved, some of the pros and the cons of Nigeria's OPEC membership.

TM: I think from the pro standpoint, Nigeria achieved much greater recognition internationally as to their importance, whether it is diplomatic or regional influence in

Africa. Well, I guess Gabon was a member of OPEC at the time but it was kind of an historical artifact rather than of real significance. And so, I think that helped them. Nigeria always has had this . . . they were very cognizant, they were kind of the leader of Africa, the "giant of Africa" is the word that is used, and I think that OPEC membership just kind of crystallized that in their mind and a lot of the international world. And I think they got a certain amount of aid from OPEC countries such as Saudi Arabia because of that. The downside is that I think it led them into policies that became disastrous for the oil industry in Nigeria and for the government, if you will. It sort of contributed to the boom or bust cycle, which is also part of the rentier government approach and I know at some point, we will talk about it. OPEC, for a while after the mid to late 1970s, felt that they could somehow . . .[end of side 1]

. . . and, you know, I think some of the OPEC countries could bear that burden for a while, you know, the Middle East countries in particular, the ones with high incomes and small populations, but the countries like Nigeria and Venezuela and Gabon could not. And so, by trying to stay with their policies of maintaining prices high, even when demand and the economic conditions did not justify that, I think proved disastrous for Nigeria. And, as a result, things came crashing down, you know, not just for the government and the government revenues but for the population as a whole. And so, in the early 1980s era, they learned some very difficult lessons about that. As an example, the crude oil that is closest to Nigerian crude within OPEC is Algerian crude. It is light, fairly high gravity, low sulfur sweet crude. The word we heard on the market was the Algerians were selling their crude at a discount to the OPEC official prices and as a result, that put pressure on Nigeria, you know, because their crude, no one would buy it then so, if they tried to sell it at the official prices, the artificially inflated prices that OPEC tried to established. So, that created a whole snowball effect of impacts on Nigeria that continued into sort of the mid-1980s.

JT: Before we get into the bust, let's flush out how that happened, how and maybe some of the reasons why, internal and external reasons that led Nigeria to that option of dropping its price. So, this is kind of your general interpretation of what is known as the oil crisis, which is 1980 to 1983, really the beginning of the oil crisis in Nigeria. I guess before we get into that, I think the crude oil scandal has something to do with this, at least it leads up to this period where you see some changing in policies that occur. Tell me a little bit about the crude oil scandal and how that impacted oil policies.

TM: You will probably have to help me on that because I am not . . . in Nigeria, there are enough of these accusations of scandal. I am not sure exactly what you are referring to. Are you talking about when the government . . . an audit was done that said a certain amount of money was missing?

JT: Right. Four billion dollars had been missing from accounting, and you are also talking about a change in administration around the time so they set up a tribunal, which was called the crude oil tribunal that went and investigated and proved that yes, there was some malicious activity but they could not prove exactly how much money was laundered or stolen or had disappeared, and the way that I am understanding it is that once that report was offered, that the Nigerians decided to change some of their policies.

TM: Yes, I think that report looked back into the period of . . . I think it went up to like 1979 or 1980, if I am not mistaken, as I recall and, you know, I have no way to comment on how valid the numbers were in the audit. I mean, I have seen later audits and I have seen some of the . . . that they did not really have it right in terms of what had caused it and what it really represented. I think some of what happened in that report was similar to some of the things that also reoccurred in the early 1980s where Nigeria was not able to sell because of the OPEC prices being above market. NNPC was not able to sell their full share. The oil companies could sell whatever price they wanted so they sold below these official prices and lost margin because of that. NNPC could not officially sell at those lower prices because they would get in trouble with OPEC. So, as a result, they were not able to sell their full share. So, what happened is production had to be shut in because, you know, you did not have to sell it, store it or stop producing it and there were limits on storage, so because production was shut in which meant that the government lost revenue, so they ended NNPC sales, they came to the oil companies and said, "well, can you sell up to your share of the production capacity"; in other words, increase production so you can at least sell your 40% share of the capacity? So, the companies did do that. So, that helped increase production, NNPC could still not sell its full share of that full production capacity because they were having these pricing problems. So, what happens is if you go strictly look at the crude oil sales, let's say, how much did the oil company sell versus how did NNPC sell, it is not on a 40/60 basis because the companies are selling 40% of productive capacity, but NNPC cannot sell that much of it so production has to be shut in. So, it is, in effect, their share of production, their percentage share of the sales of that production that has impacted. So, auditors came in and said, wait a minute . . . and NNPC did not report its full 60% of what was sold so that money must be missing somewhere. Now, I am not saying there was not money missing from other sources there, you know, from disappearing within the government somehow but I think that was the genesis of a lot of that. The problem was that was never documented. The NNPC came to the companies and asked them to do this. The companies paid full taxes and royalties on it and paid for their share of the costs on it. They did earn profit on it, although it was reduced from what was intended because they had to sell the oil at a discount, and as a result, it showed up as a disproportionate sharing of the oil – the oil companies taking 40% of the capacity and NNPC taking what was left which was, in effect, what they could actually sell at these lower prices which was very little.

JT: So, Gulf Oil, there were no controls on the price that it sold its oil it produced in Nigeria that it sold to the market?

TM: It could sell whatever it wanted. Now, you had to pay taxes based on that official OPEC price, royalty and taxes on that higher price. As a matter of fact, there was an even higher price than that called the posted price which, you start with what OPEC thought the oil should sell for and then you pay taxes on an even higher price than that in order to reduce your margin to a certain level.

JT: So, let's talk real terms. In the early 1980s, it was $35, $36, the OPEC posted price. So, Gulf Oil in its calculations of its petroleum taxes and its royalties would have to start at that OPEC posted price and whatever they could get from market is what they sold?

TM: What they sold it for...

JT: Posted prices was to figure out the taxes?

TM: Yes, so that $36 was actually translated into something like $39 or $40 a barrel because of this attempt to control the margin. So, that is how they paid their taxes and royalties.

JT: So, as the western world begins to conserve, demand is beginning to go down, you have got an economic recession, therefore, you have less demand for oil?

TM: Right.

JT: So, you have what is referred to as a glut, where there is more oil in the market than you have for consumers?

TM: Right.

JT: And this is beginning in the early 1980s. 1981. Now, this is kind of complicated for me to understand but hopefully, you and I can work through this. In the North Sea where you have got British operators, they begin to drop the prices of their oil in order to be more competitive, have a competitive advantage because there is less oil now so you have got less customers, you have got less than the market. They are going to try to drop their price to keep pace with everyone else. Now, I have read some things that discuss this, that there certainly were global economics involved – supply and demand for oil – but some argue that this was, in effect, a strategy by oil companies to begin to take back some of the power . . . in general, to bring the real prices of oil down from the OPEC $35, down towards the real price of oil, whatever it was, between $25 to $35 at the time, so that this was a strategy, so if we are going to buy that argument, then that means that the oil companies would have to, in effect, have colluded in some ways which is nothing new for the oil companies, with the North Sea to be able to bring those prices down. What do you think about those arguments or those discussions that were going on in 1980, 1981, 1982, with respect to the North Sea price coming down?

TM: Well, I am not privy to any oil company discussions on collusion, so I cannot really say. I mean, every time I hear somebody say oil companies colluding, most companies cannot even maintain something within a company let alone with a third party so, to me, it would be very difficult to see that happening on any sustained basis but, not saying it could not have happened, I think probably what was happening was at the time, most of the production in the world, if you think about it, the time in the Soviet Union production was all being sold within the Soviet Union so that really was not entering for the most part into the world market factoring, and most of the rest of it was controlled by OPEC. The North Sea was really the first big production that came on that was not part of OPEC other than what happened to be in the U.S., but that was all sold domestically in the U.S. So, that caused some big changes in the balance of power, if you will, and at the time, Saudi Arabia was not playing quite so much its swing producer role like it is now. Now, if they want to control the price of oil, they just adjust their production so as demand goes down now, you know, Saudi Arabia drops its production, that is what allows everyone else to still sell it at full price. But in those days, they were not doing it quite so much. They were doing some of that, but probably not enough. This phenomena I described in Nigeria at the time, the difference was relatively small. You know, it was maybe 30 cents to 1 dollar a barrel, difference between the market price and the OPEC price. It started widening in the early 1980s to $2 to $4 a barrel which has a real impact when typically most companies, oil companies are only making a couple of dollars a barrel as profit on the upstream. So, then it erodes the entire margin.

If the oil companies had any interest at the time, I would say it was that this whole system of OPEC posted pricing was very cumbersome, very difficult to deal with because it was not market-related. It was an attempt by OPEC to control the market. And the oil companies, probably, if they had any interest, was to see it back onto a market basis somehow. Now, whether they took any action to other than as in the North Sea, most of the majors were operating something in the North Sea and saying, hey, I am going to sell it at market and if I get more of that in my sales in a free market kind of environment as opposed to a controlled market environment, they'd prefer that. Whether they colluded, whether there was any plan on that, I just do not know enough about it to say, but it seems to be very difficult to enforce. You know, in the petroleum environment, there were millions of buyers of the crude oil . . . O.K., the sellers . . . maybe of the majors, there was a time when there was only about 7 of them but the smaller oil companies were not part of the majors and there was also keep in mind at least the same way now as it was then, the big oil companies were really the national oil companies, the Aramco's, the Petavasas, the NNPCs, Sonatrach, etc. I mean, that is where the major part of the oil came from. So, if the oil companies did try to drive their prices lower, OPEC certainly had the option to match that or to withhold oil from the market to prevent that from happening. But because I think they did not react that way that is what precipitated that. I think they tried to say controlling the prices and both controlling the production is the way they would do that because they were successful at doing that for a half dozen years, but I think they are starting to see that that was no longer going to be, but it took a while to react to that, that can no longer really work.

JT: I think the reason why the question is so intriguing to me is because of how it impacts Nigeria. The way that I understand it is, and some argue that it was sort of those same who argue about this strategy for the oil companies to bring prices back down to normal, is that they essentially look at Nigeria as sort of the weakest link in the OPEC chain and there were some reports of producers in Nigeria refusing to lift oil from Nigeria.

TM: That happened for about a quarter in early 1983, right?

JT: O.K., and I will assume because the price of Nigerian oil was a little bit higher than what they could get from North Sea or from Mexico or whatever and it was, in some ways, it looks like they were maybe threatening Nigeria "if you don't come down on that price, if you don't break with OPEC, then you are going to lose revenue because we are going to stop producing as much." Can you tell me about that concept?

TM: Well, certainly, Nigeria was a weaker link within OPEC because, you know, most of the other countries in OPEC had high revenues and low population. Nigeria had a very high population; they and Venezuela probably are the prototypical examples of that and maybe Indonesia. But keep in mind the way the Nigerian fiscal terms worked is that they kept the companies on a fixed profit for barrel, fixed margin. The way they did it is by adjusting. There was an algebraic formula for adjusting the so-called posted price which is the price for determining the tax and royalties which were at 20% and 85%, respectively. So, if the company sold at the official OPEC prices, the government would adjust the tax price such that they made a fixed margin per barrel. It was . . . I am trying to remember at the time. I think it was $1.50 or $2.00. I do not remember exactly what it was. So, companies are willing to bear with that if they are showing, if the actual market price is 20 cents or 50 cents lower than the official OPEC price because that margin is 100% eroded by the lower price because they are not getting any tax offset for that, keep in mind. But when that differential becomes $2.00 or more per barrel, that fixed margin turns into a loss per barrel, so every barrel they produce generates a loss to them. I was involved with that at the time. Yes, some of the companies observed what the others were doing. It was very difficult politically for one company to say we are going to shut in production and then all the other companies, they are still producing. You know, you kind of stand out. So, was there probably discussion amongst the companies as to well, geez, we are losing money on every barrel. It does not make any sense for us to produce . . . they probably all said, yes, it is very difficult for one of us to shut in. If you are going to shut in, I am going to probably shut in, too, so from that standpoint, I think there probably was discussion just to avoid the political ramifications and Nigeria being the only one to do that. But they were all losing money because of this fixed margin regime. Every dollar below the official selling price you sold, the oil came 100% out of the oil company's pockets. Of course, NNPC suffered, too, but that is on their own share, not on the oil company's share.

JT: So, by 1981, 1982, as the price is dropping to $32, even $30 which is the normal price, the oil companies are still forced to pay through the taxes and royalties fixed margin system the higher OPEC price and you are saying they are losing money every barrel they produced.

TM: Every barrel they produced and sold, they lost money because . . .

JT: So, it was plain economics. Now was this an isolated incident with Nigeria and its fiscal policies or was this occurring in Venezuela maybe if you can comment on other places?

TM: Yes, well, I am not as certain as Venezuela. I think that there was probably some of that there but at the time, keep in mind, most of the oil companies in Venezuela, they had already 100% nationalized the oil companies there, so to the extent that they were in there, they are on a fixed, sort of technical services contract where it was just amount per barrel. It did not matter how much they sold it for, it was just a technical services contract. Angola had a similar system to Nigeria. They had a fixed margin but it was based on what you actually sold the oil for, not on an official OPEC price, so they did not suffer from that. They had a fixed margin but the fixed margin was predicated on what you actually sold the oil for, not an official price. And I believe in all the other Middle East countries, you know, if any of the oil companies were involved there, once again, it was technical services only so they were not making their money from selling the oil. They may have had the opportunity to buy the oil but their margins were strictly a technical service. So, I think at the time, to my recollection, Nigeria was the only one that had this fixed margin system for equity producers.

JT: O.K., so it is not necessarily the weakest link as a blanket statement. It may be much more the actual way that these fixed margin, which is policy, which is petroleum policy, the way that Nigerians, their policy was actually built into the system that gave the producers literally no choice once the real price came down that they had to stop producing.

TM: Right. Exactly. That is the only choice they had, or continue to produce and lose money on every . . . the more barrels they produced and sold, the more they would lose.

JT: So, Nigerians, in turn, had absolutely no choice but to bring their posted price down which breaks with OPEC?

TM: That is right.

JT: The first country to do so.

TM: That is correct. That was the only choice they had other than, you know, if they had some other side deal with the oil companies to allow them to continue to produce. Like I said, they had had deals like that in the past that allowed them to produce, still at a lower margin but they still had a positive margin. But once that gap went beyond one dollar or more per barrel, then that margin became so low or negative that that could not work anymore.

JT: Right, and they dropped this posted price, I believe, in February of 1983?

TM: I believe that is right, yes. I had just been there 3 months before that and literally the month after I got there, the company shut in production. So, yes, I had to learn . . . well, I was already very, very familiar with the Nigerian fiscal system because, keep in mind, I was doing economics of projects in Nigeria that had a charge of Gulf's economic evaluation group before I moved there, and so I had to learn very earlier than that even how their fiscal system worked and the interplay of prices. I had actually developed for Gulf an understanding of the algebraic formula that the Nigerian government used to establish these tax preference prices. At one point, it was viewed as somewhat mysterious but I was able to sort of figure out the algorithm they were using which later became embedded in the so-called MOUs but more of an open transparent calculation of that.

JT: It makes a lot of sense. And, of course, OPEC seeing this coming, panicked, in March of 1983; they had emergency meetings, or actually from 1982, they are having these emergency meetings to try to figure out how to stop this. I believe the Saudi Arabians offered a $2 billion loan which, to my understanding, the Nigerians did not accept, at least publicly did not accept. So, as all of this is developing, you have also got what was known as the 4th Development Plan which was set for, I believe, 1980 or 1981 to 1985 or 1986. So, you have got a plan that had been implemented from 1979, 1980, which is to help for infrastructure for public works, for development, for capital improvements, and there is a fixed cost to that which is several billions of dollars. And the Nigerians were placing all of the financial considerations for funding this project from the oil revenues. So, in the background of all this price changing that is occurring, they have hedged this development plan that had a very high price tag to it on revenues. So, as you can see what I am getting at, later on this is where the IMF is coming into play because they have actually moved forward with these government plans. So, are you familiar with what I am talking about, this concept of these development plans through the 1970s and 1980s, and can you maybe just extrapolate a little bit on how that kind of fits into the whole picture of what is doing on in Nigeria?

TM: Yes, I mean, I think those plans, one of the biggest problems with them in addition to thinking a government can just spend on projects to help the economy, part of it was that they were always behind the curve . . . a critical part of it was estimating what the crude oil price would be which is the prime determinant of the government's revenues, you know. The government's revenues were probably 80% or more crude oil sales, both tax revenues from the companies and from NNPC sales, and in a falling price period, they always would estimate their prices at whatever it was when they prepared their budget. So, if prices were $35 when they prepared the budget, they forecast $35 or higher and then when they fell to $25 or $30, now all of a sudden, the government, whatever that percentage represents, 20%, 30%, 40% short, in its revenues, which, if you don't have contingency plans for that, that leads to disaster, especially one that is so highly leveraged as the Nigerian government was.

JT: In 1979 and 1980, prices are around 40.

TM: Yes. And they pegged everything to that. If they were at all below that, I mean, think of it . . . if the U.S. government all of a sudden gets . . . I mean, if they pegged in the $40 and it was as good as $36, that is still 10% below what you forecast. And the other part of it is because the government is expanding its spending, what happens in the country? Well, inflation. I mean, everything costs more if you import good. It costs more and more, at least in local currency terms. And so, they were hit with two things: one is the government doing a lot more buying which drove up inflation which drove up the cost of these programs and the oil prices declining which meant they had fewer revenues to actually pay for them. So, you saw all kinds of projects either halt in the middle of them . . . I mean, even in the oil business because the NNPC still had to go back to the central bank to get its funding to pay cash calls. When I moved there in 1982, the budget for 1983 had a 6 rig year program. In other words, we would have 6 rigs operating the whole year. In December or January of 1983, they cut that back to no rigs. But what had happened is the companies that ordered a bunch of tubulars and muds and all that, drilling chemicals to come in because it was taking one year to get them in so all this stuff came in to the country but weren't drilling anything. So, it all stacked up in warehouses and became surplus, and then there was a big dispute with the government that I ended up negotiating over the next couple of years because we bought like $100 million worth of materials to come in, $50 million to $100 million, and NNPC refused to pay for it because they did not have money. It showed up as kind of working capital and materials and supplies and it did not show up as capital spending, because we had assumed we would just use it up as it came in. And so now it was stacked up in warehouses. So, we had this big dispute with the government with NNPC because they refused to pay for their share of all these materials, because they cut the well program from 6 to 0. So, the same kind of thing that you saw in the industry was repeated throughout the economy. It ended up the oil companies bore the cost of all this until such time as they could find some resolution of it; whereas, the rest of the economy did not have that option. They had to find some other way to deal with it.

JT: What can you talk about . . . the treasury reserves in the Nigerian government.

You know, you are working with X number of dollars or naira and as these changes are taking place and inflation is occurring and you are paying high prices for imports and those prices are increasing per quarter, the treasury is coming down, what kind of problems or chaos did that begin to cause within the industry and within the government itself?

TM: Well, from the industry, the simple answer was NNPC had less dollars they could use to pay the cash calls with. And so, as a result, they became more and more delinquent on their cash calls. That was another thing I had to try to deal with. So, after a while, they became like one year behind on their cash calls. And so, the oil companies had to either, in effect, carry them or cut back programs. The oil companies did not want to cut back programs as much as NNPC did, so that became an issue. For the government, you know, keep in mind during this period, they are still trying to control the exchange rate, artificially low. And at the time, the black market rate was about 3 times the official rate for the exchange of the naira versus the dollar. So what that did was it meant that either it encouraged the black market economy even more, not just in currency exchange but in everything, and also because the black market rate for the dollar versus naira increased so much, it was much more to be made in terms of any individuals who could control that foreign exchange. So that, once again, created more of the corruption because now, if they are in the central bank, they could take high bribes to allocate the foreign exchange and the foreign exchange only became allocated to people who were somehow in with the government or they were kind of just a front for somebody in the government. So, they would get that foreign exchange at the lower rate and they would go around and sell it somewhere else at the market rate. So, if you had a bunch of naira and they are only having to pay one-third of the price to get dollars that the world is having to pay, I mean, that is a huge subsidy. The way that the government allocated those scarcer and scarcer foreign exchange reserves were less based on any rational, O.K. how should we best use them, so now it became a matter of who paid the most in terms of, whatever it was, a bribe or who could make the most money from obtaining those reserves. So, it became sort of a free-for-all within the government rather than, you know, I know there were attempts. I am not saying everybody in the government was corrupt. I don't mean to imply that because it is not the case. But when there are billions of dollars to be made from it, you know, it is pretty hard for those who are trying to keep a handle on this under a system that was failing basically.

JT: And a chaotic period.

TM: And a chaotic period. They did not know what was going to happen next month let alone 2 years from now. So, it kind of pushed Nigeria further and further into that chaos, if you will.

JT: So, when, for example, Gulf Oil shut in production and other companies did as well, that also shut in the NNPC's share of that production?

TM: Well, no. They would have produced if NNPC want to sell it so they did not force NNPC . . . they could not do that. All they said was, look, we are not going to sell anything. We are not going to nominate anything. So, we will produce whatever NNPC wants to have produced for its share but we are not going to sell any of that.

JT: Was that occurring?

TM: They were not able to sell either. So, at least for 2 or 3 months, the NNPC was nominating nothing either to sell and probably for quite a while, it was a very minimal amount.

JT: The reason why they could not sell it is because the price was too high on the market?

TM: That is right. They were not willing or able to sell at market price because they were still trying to comply with OPEC. Now, once they cut the posted price, their official price, once they broke from OPEC, then they were able to start selling right away.

JT: Explain to me a little bit about the third party concept of NNPC which is a company that is having Gulf or an operator actually produce its oil, they get a 60% share of that, it is then transported to the market. How does that oil end up at the end distribution point, who controls that and how does the Nigerian government get paid?

TM: O.K., most oil agreements – joint-operating agreements, concession agreements, whatever – are geared on the assumption that whatever you can produce, you can sell. So, you know, your technical capacity is what drives everything and that you share that capacity according to equity interest; in this case, 60% for NNPC, 40% for Gulf. Whenever you start getting into you cannot sell everything that you produce, then most of the agreements tend to fall apart and so this is what part of the problem was. We had to, in effect, put in place informal, unwritten agreements, and it is exacerbated by, at the time, even though the NNPC had taken over a share in 1974, they still had not agreed to any joint-operating agreements or lifting agreements with the companies of any sort. That did not come until 1991 or so which I was involved in negotiating those. So, you have to keep in mind, you are operating in an environment where you have no agreement with the government in terms of how you relate to them as a partner. There were no agreements whatsoever in place. Only a so-called participating agreement which basically said they had 60%. It did not say a lot more than that. So what evolved, you know, that the operator would only produce what was nominated to be sold. So, if you could produce . . . let's say we had a capacity of producing 400,000 barrels a day and part of that time, you know, the total nominations what we said and NNPC said it would sell maybe only amount to 300,000 barrels a day. So, you cannot produce more than what you can dispose of other than what you can store and that is very limited. So, you would have to shut in your production accordingly. Now, at the time, the government was setting so-called technical allowables which is what you could produce technically and so-called commercial allowables. The commercial allowables were lower and that was their attempt to reduce production, so that there would not be so much oil on the market. That, once again, was trying to comply with OPEC. So, you know, for several years before that, you were not able to actually produce your full capacity anyhow because the government was imposing this lower allowable. But then, when the early 1980s broke, you could not even . . . your commercial allowable was more than what you could sell. So, all you could produce was a combination of what NNPC said that they were nominating to sell and you make these nominations, you know, usually one month in advance and combination of what they and Gulf said they could sell. So, maybe you had, in this case, 400,000 capacity to produce technical allowable. Maybe you had a 300,000 barrel a day commercial allowable but between the two of you, you only nominated 100,000 barrels a day to sell.

JT: So, you had to produce 100,000?

TM: So, you would only produce 100,000. So then, you know, O.K., now what happens when what you have nominated is inproportionate to each other? 60/40? Let's say NNPC nominated the full 100,000 in that case? Well, you are still obliged to produce it, but now, it is only their sales. So, you have to get into this kind of like a lifting procedure as to overlift, underlift, to cause the overlift and underlift. And later, in the late 1980s, early 1990s, a little bit late, I ended up helping negotiate a lifting procedure between the Gulf and NNPC, but when you have an informal relationship where there is no written agreements to begin with, this becomes a matter of well, O.K., how do we reflect this? And what we tried to do is reflect who was at fault, who undenominated versus their share of this allowable. So, if we both did, then, of course, we both shared in it according to what we nominated, but if one party nominated even less, then their share was . . . and it caused a production shut-in, their inability to nominate, then that was reflected in the record, so to speak. But that had an impact on what taxes, royalties were paid, who was viewed as having a right to the oil and who did not have the right to the oil – all under a very . . . with no written agreements between the two.

JT: It sounds very complex and very difficult to . . . and maybe you can expand on this . . . did you ever sit down with members from the NNPC to try to figure this out when, especially in this time period, when every dollar counts, when every barrel of oil counts, and be able to come to an agreement on who is at fault in these particular instances. I can only imagine the conflicts that must have . . .

TM: Yes, it was very difficult. And keep in mind, even when they make nominations, quite often, later in the month, they say, sorry. We cannot even sell that nomination. So, you know, if it was just the nominations, you could do it but then there are nominations and a later adjustment to it and quite often, that later adjustment was just them calling our crude oil coordinator and not ever sending a letter or anything like that. So, that is sort of one of the things that contributed even more to these so-called crude oil scandals because, you know, with no agreements, quite often, we were responding only to verbal NNPC notices. You could not ignore those verbal notices, otherwise . . . you would have to shut in anyhow because you could not store that oil if you could not sell it. So, we created, at least I created on behalf of Gulf, a system of kind of trying to track that and a system of defining who was at fault and who was not. And fortunately over time, it stood up. After a couple of years of negotiations and getting experts in, etc., I mean, and then some minor adjustments of that. And we tried to do the right thing by paying our royalties and taxes, full royalty and taxes on that, and showing in our accounts that we owed money, if you will, for the costs because we, in effect, were lifting more than our 40% share of what was produced because NNPC could not sell its share and we were only still splitting the cost 40/60. We put in . . . O.K., we owe them costs, we owe them operating costs because we should be paying proportionate to what we lift even though there was no agreement that said that but that was the interpretation that I took at the time.

JT: And they did not pay?

TM: They did not pay their share anyhow. So, we later settled this years later where we did pay them those operating costs. We offered several times in the interim to pay it to them and they did not accept that because they were not . . . I am not sure they fully understood what we were doing even though we made several attempts to explain it to them. So, this just further added to the complexity of what was happening there. It was a way to react to a survival mode, if you will, for both NNPC and the companies but there was not an easy way to figure this out.

JT: Did you have one Nigerian guy who you worked with on a regular basis from the NNPC?

TM: I had several. I mean, this is one of the problems they had there because, you know, I know we are getting into evaluating NNPC, but some of their appointments, I do not know if I would call them political because they were not political party representatives but they would shift around people on a regular basis, partly because they wanted to avoid corruption. If somebody understood the system too well, they did not want them to know it too well so they would move them out or they would move in people because they were from different regions in an attempt to kind of achieve a balance of ethnic groups or sometimes because it was somebody that was a friend of a family, if you will. I mean, they were all very well-educated people – I am not trying to say they put in incompetent people – but you are constantly faced with this kind of revolving door of people so once somebody got to know a system, they were out. They had to educate somebody else again and that took quite a long time for that. So, on some of the issues like on this claim on the materials and on some of this, I actually dealt with the person who was the managing director of NNPC, their sort of upstream group, you know, because they became that high level and huge amounts of money. You also deal with the tax authorities, the inland revenue, trying to explain that to them because that affected the taxes but, of course, they were not as expert on the petroleum business and, of course, even if you were, this was still a very complex thing to try to understand. So, it was really not one person, per se, although if any, it was this guy who was the managing director, Adams.

JT: Well, I think you have answered one of the questions, which . . . what explains the NNPCs major dysfunctions and we have listed a few of those.

TM: That is part of it, yes.

JT: I think the policy has something to do with that. We can talk about that in a little bit or maybe save it up for another time period. But when you are talking about the royalty and the tax in the posted price equation, coupled with the 60% of revenue and cost share and production as two tools that the Nigerian government used, those two, to me, seem to have caused most of the problems as the 1980s continues to roll through. In your opinion, Tom, historically speaking, from 1977 and 1979 when the NNPC is instituted up until when things began to look a little bit better in the last couple of years, has the NNPC been a benefit or a hindrance to the Nigerian economy?

TM: Well, you know, I think something like an NNPC was necessary, necessary to give the government the comfort that they had adequate control over the petroleum business; I mean, international petroleum business is complicated. The international companies are sophisticated although, you know, in Nigeria, they do not always have the resources. They may have sort of the corporate level for that. So, they had to have some way of controlling the oil companies, making sure they knew what they were doing. They needed to have a way . . . there was an inspector of division at NNPC that was kind of like the Texas Railroad Commission kind of thing. It tried to control production from a conservation point of view and make sure that reserves were being established, if you will. So, from that standpoint, that part was good. It helped Nigerians learn more of the petroleum business. I think the downside was it became viewed as a big employment agency. I mean, they employed at one point, I think, more people than the rest of the operators employed. And this is one of these things about the petroleum industry we talked about before – it does not employ people. And so, they looked at that. It is a critical thing for Nigeria. And so, it became the employer, which, on its own, maybe is not so bad but it created inefficiencies, it created a lack of a merit structure, if you will, and it created a bureaucracy that just made it very difficult for them to operate and, in a way, allowed, if any corruption occurred there, it just enabled it because it was harder to say who was accountable for something and it was harder to establish some of these internal controls that a typical company would have. And so, I think from that standpoint, it did not help. It created employment, it established certain controls but because also the way it was set up, it did not control its own funding. It had to continually go back to the central government. So, it could not even really function, in a way. You would have these huge battles with them over the budget every year. I mean, it was incredibly time consuming. And major changes in the budget which were very difficult to adjust . . . [end of tape 1, side 2]

JT: This is tape 2, with Tom Mitro for the Houston History Project . . . can you compare the NNPC, compared to like Petrobras or some of the other national oil companies who have had so much success over the years and even into the 1980s and the 1990s. Obviously, the concept of a national oil company for these small developing countries is important and, in some respects, it works, as some of the examples prove but this is an example of a concept of a national oil company that was needed, that was implemented, but its implementation failed because of constraints, because of the way the Nigerian policy operated, the enormous corruption that was embedded within the Nigerian government and the oil industry from the NNPC perspective. What are some of the things that you think maybe they are doing now, maybe they have recognized now or things that they could have done back then that would have maybe changed the outcome?

TM: Well, I think comparing to some of the other ones could be a little bit unfair. I mean, here was actually a relatively mature industry in Nigeria at the time they were established so they are set up to kind of deal with that. The Petrobrases and some of the others were really, even though they regulated the industry, they are really out to look for oil in other places. That was a big part of what they were after, you know, from a national interest. And so, they were, right from the start, forced to be competitive. If they were not competitive, they were not going to get to look at concessions or be able to operate. So, NNPC was, right from the start, set up to kind of regulate, monitor which is not necessarily a function. It tends to reward sort of government-type bureaucratic reaction rather than innovation, change, technological implementations, etc. And so, it allowed itself or did not have any choice but to become sort of a political tool in the way of whoever was ruling the government. Also, you cannot divorce it from the government itself. The government, if it is a military dictatorship, will run a national oil company differently than an elected official would, so that has a big impact on it. So, I do not necessarily blame the people in NNPC, but it is as much the government political environment there and the role that was established for them.

JT: If we go back to one of the first questions, the rentier mentality, when you are talking about an organization that is not set up to compete in the world oil market, an organization that is not set up and is somewhat autonomous from the federal government that relies on its own revenue and cost, etc., an organization that you say is a political tool that is relying on the federal government to OK its budget and to funding it for cash calls, you can see how that attributes to the rentier state in Nigeria.

TM: It does. It sort of isolates it from the economic realities, from world competition rather than sort of enhances its role in that. And, you know, that is all part of that same phenomenon. So, I think it is a clear case of that, where they were not striving for competitiveness and international interaction, but more of a control type of environment and an employment thing, and certainly, a national pride type of thing. Those factors do not always lend themselves to an efficient organization.

JT: Now, you also got around this time, as we understand it, 9 to one dozen subsidiaries from the NNPC. Can you tell me – we are still talking about the early 1980s up until 1988, let's say, when prices began to come back up – is there any success in these subsidiaries, are they producing any oil, and is there anything positive that we can say about that policy?

TM: Well, as I mentioned before, there is the so-called inspectorate division, which is the one that monitors production for conservation that kind of is the watch dog on making sure that companies are striking the right balance of producing versus funding reserves. I think they were relatively successful in doing that. They probably did not always get the power they needed to do that but I think they were well-run that way. The downstream side of it in marketing was once again, it was not very successful. Part of it was they were, in effect, the agents of implementing the government's policy of price controls. So, they had no economic incentive to do well because they were selling at prices that were, whatever, 10% to 20% of world market prices. And so, once again, fixed margin, and there is not a lot of incentive to get the gasoline to the right places at the right time at the right amounts when you are not really going to be rewarded for that. And they also had a group that ran the refineries there and, you know, once again, it was not based on economic criteria, it was based on satisfying a government policy of providing oil and, of course, they had a horrendous record, both safety record and explosions. Their down time was probably well over 50% and the maintenance was notoriously bad. Once again, the government deprived them of any economic reason to do that and deprived them of funding as well. They did not fund them. So, I think NNPC tried to establish an operator arm. I know they drilled . . . I am not as familiar with recently how well they have done. Back in the early 1990s, they drilled a well in Lake Chad that was famous for never having been completed and overrun several times, but I just am not as familiar with how they have done more recently.

JT: O.K., so let’s sum up this experience. By 1983, Nigeria is forced to drop the prices of oil and essentially break from OPEC, much to the dismay of the OPEC leadership, and the price drops, it keeps dropping, maybe down to $30 and maybe down to $28 to $25. And that is the global oil economics that is the invisible hand of the market that is making these changes or forcing these changes in many ways on the Nigerian government. And, of course, this is going to have major consequences for the Nigerian people, for the economy, for the world in general, for people in South Louisiana as we talked about earlier. So, kind of walk me through your experience. You are there. You have got boots on the ground in 1983 as this thing really begins to dip, as other nations – Libya, Venezuela, other OPEC . . .the so-called OPEC price war was beginning. OPEC just cannot control prices and production, and it is really everyone for themselves. Walk me through, from a perspective of someone who was in his office in Nigeria working for Gulf and seeing how the NNPC was falling apart and how this chaotic development that is going on in the government from 1983, 1984 and 1985 . . . kind of walk me through how this deteriorated.

TM: Well, I mean, I give NNPC credit. They tried to deal with this. They were not setting these policies; they were just reacting to them. And so, they were actively looking for ways to get the government to move off of some of these policies. So, they did recognize the factors that were creating this problem. And, like I said, they encouraged the oil companies to try to produce and sell what they could, they were flexible on that, they tried to get more budget from the government to help pay for some of the costs of trying to maintain at least a minimum infrastructure. I think the government saw this. Like you said, they broke from OPEC and this eventually led to . . . primarily led by

NNPC and the Ministry of Petroleum, the so-called memoranda of understanding in 1986, although we kind of used some of the concepts before that, which is, in effect, still what they are operating under for the non-deep water, which basically took the pricing away, out of the hands of OPEC and based it on a formula that was transparent, that was based on market price. It takes refined products in the U.S. Gulf Coast, subtracts transportation to get it back to an FOB Nigeria price and also another part of it is based on quotes for Brent Crude and other types of crude with quality adjustments, you know, so it was a very innovative agreement, still is innovative, I think. It recognized it had high fiscal terms which disincentivized exploration, so they created exploration incentives and they created reserves additions, bonuses and tax credits. To me, it was very clear as to how it adjusted the price to get to taxes. It actually had the formula in there. I still have a lot of admiration for what they did there in reacting to this. It was innovative. It was market-based. It was transparent. It revitalized the industry. I mean, you saw drilling go up a couple hundred percent once this was put in place and you saw reserves being added, you saw production going up. So, very quickly, they learned from this experience and reacted and adapted and adjusted. And they got support from the government for doing this.

Within the country though, you know, until this happened, until the impacts could be reversed, you know, as you said, Nigeria defaulted on loans, the IMF came in to try to impose the structural adjustment program, which was not very popular, you know, and it tried to put currency exchange at a market price. It tried to do away with some of the price controls. It tried to open up the economy for imports and encourage exports, those types of things. It tried to reduce the money supply so that inflation would be reduced, which also should help the exchange rate. And some of these things, you know, in the long run, may be the right things but in the short term, were just so politically and socially difficult: created unemployment; people moved to the cities, could not afford to go to work; it created even more inflation because now, prices were at the exchange rates with real rates. And so, the government ended up having to back away from some of these SAPs programs. They had strikes. So, it encouraged political activity. So, in a way, the adjustment, especially on the petroleum prices, really encouraged sort of a political awareness in Nigeria probably for unanticipated reasons, because people were so . . . it was such a hot issue what the price of petroleum was there that it triggered demonstrations, riots and political activities, and it still does to this day. Every time the government tries to raise the price a penny or two, you get strikes in the streets. So, you know, they went through these periods where they tried to comply with that but it just became difficult and in some cases, I am sure it contributed to coups and changes in government; it became that severe. You know, part of this time, they had had a civilian government from 1979 through 1983. Shigari was the president. And then, on New Year's Eve in 1983, there was a coup and the military government took over and stayed in control until the late 1990s really or early 2000, I guess. So, some of this economic chaos partly caused by the oil price drops sort of made democracy that much more difficult there. I mean, just like you see today when the opposites happen; prices go up, you know, people like Putin and Chavez become a lot more popular than they would have been otherwise, you know, just because they are net exporters and when you are a net exporter and prices drop, the exact opposite happens. And so, that ended up contributing to military takeovers there, I think, pretty clearly. So, through all of this, the oil companies operated. They became expert in surviving, I guess, but with a lot of chaos, with probably more lean years than good although what tends to happen: the good years outweigh the bad years because, you know, when something happens, it happens quickly and it is a while before the government reacts sometimes. So, I think this whole concept of your whole economy being dependent on the price of oil is not very good for establishing and maintaining democracy and continuity because every time something drops, that price drops or improves, you get a reaction within the government or peoples' reaction to the government. So, it really depended on that. Until you can diversify, until you can perhaps use those revenues to establish some stability – whether it is a trust fund . . I think Angola is trying something like that. When prices are high, they are trying to use some of the money to not just repay loans or to have programs but to invest it, keep it for the lean times. And I think Nigeria has been trying to do that as well, if I understand it, more recently. So, I mean, that is part of the good side of it, that they are learning from those past experiences and trying to wean themselves a little bit from being completely dependent on the oil price. But it is still way too much of that. If prices were to drop and stay low for an extended period, they would suffer. The government would probably change and it is just going to be a very difficult situation.

JT: So, part of the problem is, as you mentioned, these adjustment programs, structural adjustment programs, SAPs, and the way that I understand it is that Nigeria, at least at first, did not sign up, if you will, for IMF SAPs. They initiated similar type programs. But then, in 1986, I believe, when you had a change in government, they actually went through with the IMF mandates. Tell me a little about that first period and what are some of the adjustments, some of the reasons why they needed these adjustments, and then the later adjustments in 1985 and 1986, I believe, and kind of how all of that was of benefit through all the decade of the 1980s or did it really lead to what we have seen now as much more decline from agriculture, from education, from other types of social problems?

TM: I think one of the problems with the IMF program is that there is no sort of tailoring to the culture and the economy in each of those places and there is no recognition at all of the political fallout of it. It is one size fits all and I think even the IMF has maybe perhaps recognized that. But, you know, if you are in an oil producing country and you view that the only one real benefit you get from producing oil is that you have low gasoline prices, to then take that away. While that may be the right thing to do economically, it is a difficult thing to accomplish. I mean, I think the government policy of having that in the first place probably, to my mind, has clearly led to increased urbanization because now it is easier to travel back and forth, less expensive – not easier, but less expensive – it is easier to have a job in the city where you have to travel to work and ride on a bus that costs almost nothing or a taxi that costs almost nothing. So, what has that meant? It has meant agriculture has atrophied. It has meant that it is much easier for a military government to take over, control the population. If a much higher percentage of them are based in Lagos or Port Harcourt or Abuja, you only have to control 3 cities really and you have controlled the country. And so, I think in a way, indirectly, some of those non-implementing SAP has enabled some of the less democratic practices, if you will.

I think the exchange rate . . . when I was there in the early 1980s, the government was trying to control everything. Banning so many specific things. It was a death penalty if you had champagne there for a while. I happened to have an old bottle . . . I am not a big champagne fan . . . I remember on New Year's Eve 1983, we drank that. It was one of these things where you had to close all the blinds and all that just to make sure that no one found you with that. We drank it mostly so we could get rid of the bottle and not have it in the house. They had the death penalty for currency trading, etc. And you cannot, for any long period of time, establish artificially low or high prices for anything. OPEC tried the opposite side – artificially high. The Nigerian government tried to establish artificially low prices for a range of things, all the way from rice to petroleum to exchange rates and all of those create either chaos, corruption, or some sort of major distortion. And, you know, I think the SAP programs, having gone to a freely floating exchange rate, is the only answer for any country. You cannot maintain a lower than market exchange rate and survive. The intention was it would encourage exports and discourage imports. That is fine as long as oil prices are not influencing your economy more than that, which they are and that is a problem. Once you have a bunch of oil at high prices, then the exchange rate is as important. The lasting legacy is that Nigeria has actually been pretty stable. I mean, when I was there, it was probably declining 100% per year. It has pretty much kept at the same dollar level for the last 10 years now. Now, part of it is the weakness in the dollar but still . . . a lot of it is due to the price of oil remaining high but, you know, those factors drive it more, I think, than what the structural adjustment program may have done. But it does have to have . . . I mean, I think some of the legacy of it has been good. Not necessarily saying that Nigeria is in much, much better shape but they would have been in even worst shape if they had continued some of their previous policies. They had to open up trade. They were banning all kinds of foods and everything from being used in the country. That was not the way to encourage agriculture, to my mind. O.K., yes, you cannot allow just a free unfettered trade without any concern about if U.S. and European Union are providing subsidies to their farmers, it is pretty hard to compete with that because it is not really free competition any more – you are competing with subsidized industries. So, you have to be cognizant of that, but just banning everything for import was probably the wrong way to do that because other governments react and ban your items for export. But you have to develop something there that people want to buy. It is not so much the price, but find a way, what can you do, whether it is provide services or provide agricultural products, and they found oil to do that but some of their attempts to diversify the economy . . . they brought in the Russians to build steel mills and they relied on electrical power, which was completely unreliable . . . they have to really have a better feel for what Nigeria can do different than oil and what they can do that is competitive worldwide, not just because it would be nice to have the steel industry. It just was a failure in the central economy. So, I think that is the legacy of it. It has probably made them recognize that they have to be competitive around the world. But high oil prices still continue to protect them from that reality and it probably puts off even further that need or that imperative to diversify in a way that makes sense.

JT: Have the Nigerian people or its economy or its policy recovered from the 1980s?

TM: That is a good question.

JT: Mentally, economically, environmentally?

TM: Probably not. I mean, I think at the government, they have learned the lessons of the 1980s but they are still completely dependent on oil and oil prices. They have probably lost a lot of their . . . there has been a brain drain. A lot of Nigerians have left the country because of not wanting to put up with that instability. I think they have learned that democracy is a better approach than the military intervening. The military is not . . . I think at one point, they actually had a reputation for trying to do things the right way, but that has been long ago lost. Democracy is imperfect, but it is better than the military being there. So, they have learned some things, but I think that the issue still becomes being a one resource economy still and they have got to find some way of diversifying the economy in a way that makes sense – not because the government said so or because the government spent a bunch of money on something. Agriculture is still a hope there, I think. It is still a very fertile place for agriculture, but they have got to improve the roads, they have got to improve the techniques, they have got to improve the exporting. I think they can be like India. They have the education levels to take on high tech business, you know, but once again, they have got to put in the other infrastructure, which is the justice system. People, I think right now, would be afraid to have anything like that in Nigeria just because they have got such a reputation for fraud. So, they have got to improve all those other systems first to gain confidence of the rest of the world.

JT: What explains the reason why – maybe it is corruption, but I would like your answer – what explains the reason why, after all we have talked about today, the complete collapse of your primary economy and the understanding, the realization of well-educated Nigerian people who are ambitious, who want to develop, who want to do better – they do make some improvements, some innovative improvements as you mentioned, but after seeing their economy, their nation, their people, their education, their environment completely deteriorate as a consequence of bust to yet still, here we are, still dependent on a mono-economy? I mean, is this the ultimate resource curse? Is this the ultimate explanation of the resource curse, that no matter how bad things are, no matter how deplorable your conditions are, vis-a-vis the 1980s, that a place like Nigeria still cannot diversify its economy?

TM: I think so. I mean, you see countries who have a lot worse education levels than Nigeria, that have a lot less dynamic kind of culture, if you will, that have a lot less business, entrepreneurial orientation, do better, because they have no other choices. They had to. They had to find a way to find something that worked there. And that used their people and their peoples' abilities, if you will. And combined with the natural resources. You see Botswana, you see South Africa. I mean, South Africa has got a lot of resources but they are diverse – there is no one that dominates, you know, and they have had to find a way. And, in a way, the hardship of the sanctions that were imposed on the Apartheid era forced the diversity of their economy. You go and see all these industries there that are thriving and you talk to all of them – they all got started during the time of sanctions because they could not import services or goods so they had to come up with a way of doing it themselves. Even they are one of the world leaders in using natural gas to convert natural gas into liquids. That is where that technology was born because they could not import oil so they had to use the natural gas they could get from Mozambique and places like that to turn them to liquids. So, in a way, that lack of resource is what is the cradle, is what creates that diversification in those other industries. And as long as you have the oil back there and as long as the oil is at the high prices that it is, it is going to be very, very difficult in an economically viable way to diversify.

JT: They did not do it in the 1980s. Why would they do it at $90 a barrel or even $50 a barrel?

TM: Very hard, because for the leaders . . . I think any society is always influenced by its leadership. I do not mean just the political leadership, but the economic leadership in the private sector. As long as they are always going to be better off and safer working in the oil industry, they are not going to go and get into something else. I mean, you will see people who do that but it is not enough. And you still have this . . . capital formation there is very limited. They have got no way of . . . people do not trust putting their money into banks or financial institutions or investments in Nigeria, so they put it abroad. So, as a result, capital formation, people that have businesses require minimal capital. And that is the type of export/import, maybe construction business, things that do not require that. I have seen some cases where there . . . it seems to be happening at the state level, state government level as opposed to the national government level. I have seen some things where they are trying new things and I think that is probably a lot more hopeful than the national government doing it because the states, while they get some of the revenue from oil and gas, it is limited. And so, you know, you see some of the governors there are kind of trying investment encouragement schemes, etc. And so, that is probably where, if it comes, is where it will come from, would be my guess, at the lower levels, you know, in the regions that do not have oil and gas.

JT: Either that or they will run out.

TM: Yes, that is the other part.

JT: In 50 years, they will run out and they will be forced to go back to ground nuts or palm oil or whatever it is to get sort of . . . the baseline of a growing economy that happened here and happened everywhere, is that agriculture, is that plow, is that farmer. And they have completely abandoned that as soon as they discovered oil.

TM: Yes, it happens every time. I think that has got to be a key to it. They have got to find some way to deal with the subsidized agriculture in the Western world, you know, and to compete with that in a way, but I think that can happen. It is just a matter of political will around the world. You are already seeing some of that. And they have got to diversify in other areas. I mean, like I said, the thing that Nigeria has going for it that I have seen in very few countries, whether it is in Africa or not, is the level of education and this entrepreneurial spirit. People are willing to try all kinds of different things. They are innovative, creative, and you know, that, to me, is a real pity there. You do not always see that and that is the part that has gone to waste. To me, that is the greater shame than not growing crops but in using that brain power that they have there. That is going to be their hope, too. Hopefully, you can get all these Nigerians that have gone abroad as doctors and business people and professors and all that and find a way to get them interested again in Nigeria.

[End of interview] [Final edit by Jason Theriot, 10 July 2008]