PROCEEDINGS RESUME ON 8 MARCH 2002

CHAIRPERSON: Good morning ladies and gentlemen. Let us start this Friday morning session. The first witness this morning is Mr Glynos. Your full names, Mr Glynos?

GEORGE BAREND GLYNOS: d.s.s.

CHAIRPERSON: You may be seated, Mr Glynos.

MR POTGIETER: Mr Commissioner, we are in the process of making copies of Mr Glynos's statement for the attorneys and counsel and also for the press. It will be here within the next few minutes.

CHAIRPERSON: Yes.

EXAMINATION BY MR POTGIETER: Mr Glynos, your CV is in the bundle on page 451. Will you please summarise your CV for the Commission? --- In summary I studied a B.Com through UNISA majored specifically in Economics, Finance and Industrial Psychology. I was fortunate enough to gain employment at Econometrix where I served under the chief economist, Dr Azar Jammine, for a period of approximately a year and a half. I was then promoted to the retail division of Econometrix. I was analysing the retail industry and the macro economic factors that impact thereon. I was then placed in charge of running that retail industry and when an opportunity opened up with the sub-division of Econometrix in the active market analysis of the foreign exchange and bond market. I jumped at the opportunity and I was then employed through to a sub-company to Econometrix called Standard & Poor's. Econometrix has got the agency for that and I have been working there for close on three years now and that is where I have obtained most of my experience in both the South African Rand and the bond market.

Will you speak up a bit? I am not sure that everybody will hear you. --- Sorry.

You described yourself as a market analyst. Mr Glynos, please explain the role of the market analyst in the foreign exchange field, the influence that the market analyst could have on foreign exchange? Not on foreign exchange on the exchange rate. --- I see a market analyst as something in between your trader and an economist. An economist we believe looks at the economy far more from a macro perspective less in tune with the market mechanics that may take place on a day to day basis and I believe that we form a gap between the role of an economist and that of a trader. Quite often traders for instances are very caught up in their day to day transactions and the physical act of dealing and our basic job, our function more than anything else is to be the eyes and ears of a trader and to inform him of any developments that take place either macro economically through the course of the day or on a more micro level if we pick up for instance a rumour through either the media or chat sites or having just spoken to people in the market. We will make them aware of such rumours or possibly make them aware of any developments that may not be publicly known.

In the expert bundle on page 423 and further, there is a copy of a statement by you. Is that correct? --- That is correct.

Do you confirm the content of the statement and the annexures thereto? --- I do.

Mr Glynos, will you then without reading the statement into the record, take the Commission through your statement and your slide presentation? --- With pleasure. I would first like to say it is an honour to be speaking in front of you. I now stand in the presence of many far more experienced economist and I am hoping that through the work that I do on an every day basis, that I offer a different perspective on the issue as to the rand's decline and I just thank you for the opportunity.

This is the situation we are faced with: a well-known chart to all of us and for the most part of this chart, it has been fairly easy to understand and to justify movements that have taken place in the currency. This has been the case up until the point where we see that 1998 emerging market crisis hit. That was the first time we saw the South African rand vulnerability to speculation and to emerging market contagion and you can quite clearly see on the graph that from the point of that arrow indicating the emerging market crisis onward, there is a significant escalation in the rate of decline of the currency.

Now in my experience working closely in the market, it is on a very rare occasion that I find that there is just simply one reason to explain the movement in a currency. Quite often a currency by definition is a very complex market. It is an over the counter market and it is influenced by many different variables, economic, market related, perceptions and there are market players throughout the world that would participate. It is therefore complicated and I have great difficulty in believing that we can simply pinpoint movements in a currency to simply one event or one transaction or even maybe one or two transactions. I believe it is a situation where many factors are compounded together to create this perception of a one-way market and this is, I will be talking through why I believe the perceptions of the rand is being a one-way market, how it came about. I will be talking about the basis of that and I think the first thing I am going to do is actually start by talking about the forward market *per se*. The graph at the moment is not all that important. However I think I need to read .. (intervenes)

That is table 1 on page 453. --- Sorry, table 1. Before I get to discuss the actual contents of the table, I would like to read just a brief description of what a forward market is, a definition of exactly what a forward market is:

"It is a market in currencies at an agreed date in the future. It enables a company to agree today to a rate at which foreign currency will be exchanged in the future. The benefits of this market are for certainty in future dealings for those company aiding them in their budgets either from an import or an export perspective."

It is very important, however, to note that this market moves according to the mathematical result of the differences in interest rates between the two countries involved. In other words if we are talking about the dollar/rand, we are talking about the US and South Africa and it does not reflect a perception of where the currency is expected to be. It is a pure mathematical calculation.

Now when looking at table 1, which I am going to talk you through, we are going to be comparing the rates of change of the spot rate in the rand, where the rand was actually trading on a particular given day and comparing that to where the forward points or the forward rate was reflected on that same day.

If we have a look at the first sub-table in the global table 1, the first heading in forward points as of 1 January 2000 we see the spot rate on that date was at a level 6,1425. Just below that we will see the corresponding forward points that could have been obtained on that particular day. Those forward points are then added to the spot rate to give a company a forward rate at which it would be able to purchase or sell dollars at that future date. To the right of ..

(intervenes)

Just give us the numbers there as well as you go along? --- The three month forward points are quoted at 795, the six month forward points at 1480, the 12 month forward points at 2850. If we then move a little to the right looking at column 2, we see the forward rate discounted on top of the spot rate as of 1 January 2000 at 6,222. This when we compare to the actual spot rate, if you move further down column 2 to the spot rate at that date on 1 March 2000, was 6,34. In other words when looking at this table, it is clear just from this very first example that the actual spot rate itself had moved well beyond what the forward points had discounted and what the forward rate would have been had a forward contract been taken up on 1 January 2000. It is a significant point this and if you continue going through to column 3, you will see that a six month contract would have resulted in an even bigger disparity and the 12 month contract in a bigger one on top of that. I have done the same calculation for different dates. The next sub-table within table 1, started on 1 January 2001 and very much the same result was achieved whether I was looking at a three month contract, a six month contract or a 12 month contract, in all three cases the spot rate, in other words the rate at which the rand was actually trading at on those future dates, had weakened far beyond the forward rates that would have been given by a bank to a company had they taken that forward contract.

Now this is a fairly significant development because it leads to one particular phenomenon and that is it is clear to see that an importer, a company importing, mining company, any company in fact that would import any good or any capital good or even minor good, it may be a movie house importing movies, would benefit from taking out that forward contract. They would benefit by the difference between the spot rate at the time and the forward rate that they would have achieved through the bank.

This obviously impacts directly on a company's profitability and would give them a certain competitive advantage in the market in which they trade in if they imported their goods better than a competing company.

Conversely an exporter who would earn their dollars by exporting their goods, would do better not to take up any forward cover at all and to rather take the rate at which the market is trading at at that future date. Quite simply they would get more rands for their dollars as can be seen from the table. In every single case that I have calculated over there, the actual spot rate at that future date had weakened well beyond the forward rate. So we have a situation where importers would do better to cover forward as much as they can legitimately and exporters would in turn conversely not take up any forward contracts at all, rather they would wait for the currency on that particular date to exchange their currency or repatriate them back into rand.

Now the net effect of this is that it creates, this is one of the factors that I believe creates a one-way perception in the market is that and any corporate desk will be able to confirm this with you that we have this underlying future artificial demand for dollars that has been created through the forward contracts. In other words contracts that had been taken out in six, 12, 18 months time, will come up for delivery and on those dates those dollars will have to be delivered to the company. So there is a future demand for dollars which is established.

Conversely on the exporter's side, there is not a firm commitment of dollars sale into the market. So any bank that looks at its forward book is likely to see a situation where they have future purchases of dollars to make but very few future sales of the same magnitude to make. This artificial demand as far as I am concerned, creates to or it certainly helps to create this perception of a one-sided market.

Moving on to the second reason which I believe or before I carry on, chart 2 is just really a graphical representation of just how far the spot rate moved beyond the forward rates as of, if that forward contract had been obtained from 1 January 2000. It is really just a graphical representation to show that the disparity between the rate that would have been obtained in the market and the forward rate itself.

In other words you distinguish here between the spot rate on, if we go back to your graph table 1, the spot rate on say 1 January 2000 the forward three months forward rate and then the actual price that one would get at that forward date. --- Correct.

And what you are saying is that the actual price would have, just make that point again compared to the actual forward rate. --- Sure. The actual price, I am not sure if I can go back. The actual price as reflected by the blue line shows that the ... actually what you are seeing on the left here, is the dollar/rand rate. The blue line reflects the rate that would have been obtained in the actual spot market .. (intervenes)

At the future date? --- At the future date versus what would have been seen or what would have been obtained through a forward contract if that forward contract had been taken out on 1 January 2000.

Thank you.

CHAIRPERSON: 1 January 2001? --- Ja, sorry. Ja, correct 1 January 2001. My mistake.

So this analysis favours the import as soon as possible. --- Absolutely. That has been my point is that importers would gain significantly by covering as much as they could forward at the earliest possible date because as was seen from chart 2, the disparity grows almost exponentially the further out the forward points are taken.

MR POTGIETER: You are now on chart 3. --- Chart 3 illustrates a relationship between the net open forward position and the real value of the currency. I believe that this net open forward position was another factor responsible in the one-sided market that we have perceived to have. I do not believe that it is the net open forward position in itself which directly impacts on the currency. I believe it is more, I think it has got more to do with the Reserve Bank's stance in aggressively reducing this net open forward position that comes to focus.

I believe that the Reserve Bank has made it abundantly clear on many occasions that they have a key focus to reduce this net open forward open position and in my opinion they seemed to be doing it almost at the fastest rate that they can. In other words when they do have inflows coming in whether it be through an offshore bond issue or whether it be through privatisation proceeds, virtually all of those inflows as far as I can testify to, have been taken up or have been used to reduce the net open forward position.

So in clarifying for me it is not the net open forward position itself which is the biggest problem, it is the fact that the Reserve Bank has made it abundantly clear that they plan to reduce this net open forward position very aggressively. The Reserve Bank has also made it clear that it will not be intervening in the market. They have come out and said that several times and I think when you take into context that the Reserve Bank has mentioned on several occasions that it will be reducing the NIFP rapidly and that they will not be intervening in the market, that it does create a one-way perception in which the market sees the Reserve Bank, the central Bank, purchasing those dollars or be it not directly from the market, they see them soaking up those dollars before they are even allowed to touch the market and are not prepared to defend the currency through intervention should the current weakened dramatically. It is not to say I have a problem with the reduction of the net open forward position. I think it is a good policy and it is not to say that I have a problem with the lack of intervention. My problem is that I believe the Reserve Bank may have made it too clear to the general trading public, to the trading community that they were going to reduce the NIFP aggressively and that they were not going to intervene. Maybe a better approach would have been to reduce the NIFP through a slightly longer period of time periodically allowing some of those inflows to physically enter the market. It would have almost been a form of passive intervention with those dollars being able to lift the liquidity of those dollars and thereby helping the rand strengthened and in the case of intervention, well I believe that intervention was one of the main reasons why the net open forward position was built up so dramatically in the 1998 emerging market crisis and has been seen in various examples including recently in the Japanese Yen. Intervening in the market is a short term fixed solution. In most cases intervention does not, the effects of the intervention do not last for very long. So I believe that physical direct intervention by the Reserve Bank would have been futile. Having said that, however, I would have preferred it if they kept the market guessing so to speak added to the uncertainty in the market and made it, well given the traders less of a certainty that this market would be a one-way bet.

Then will you move on to table 2 on page 456? --- Moving on to table 2, I think what we need to discuss over here, is the fact that the liquidity and the tradability of the rand, is something that has come to the fore through the course of the past two years - certainly since the 1998 crisis. What we see in the table here from the Bank for International Settlements, I believe you had a speaker earlier on in the week, we see that ever since 1998 onwards, turnover in the rand increased substantially. In fact it doubled from 1998 to 2001 liquidity or the amount of transactions turnover that took place in the rand, virtually doubled.

Although impressive to see and good to see that South Africa's rate, if I am not mistaken around 12th most traded currency in the world, it does however open the door for the South African rand to be used as a speculative hedging tool against emerging market contagion and in fact emerging market crisis anywhere possibly. It is an easy safe bet to use that South Africa with is various problems which I will be discussing a little later, is a prime target with a lot of negative perception in the market to be able to use as this speculative hedging tool.

You are now on page 458, chart 5. --- Ja, I am now moving on to .. (intervenes)

Chart 4. --- Chart 4.

On page 457. Will you as you go along, keep the page number and the chart or table number for purposes of the record? --- Okay.

CHAIRPERSON: While you are looking at that chart, the chart starts in June 2001 and goes up to February 2002. Is that right? --- Correct.

Thank you.

MR POTGIETER: Before you continue, Mr Glynos, on the printed copy of that slide, the word coverage has been left out. Do you notice that? It should be "Argentinean crisis gaining increased media coverage". --- Yes, that is right.

And also on the right-hand side "Accelerated depreciation begins". --- In reference to the slide, excuse me for one second. In fact if you mind, Commissioner, I have got to speak on one more issue prior to that which is discussed earlier in my text and that is the political developments which I believe played a role in creating a one-way market. If I can just blank that chart out for the time being.

Again political development .. (intervenes)

MR POTGIETER: Where are you on your statement now? --- On my statement I am .. (intervenes)

Page 428. --- Yes, page 428, correct. Page 428. One of the factors which I picked up a lot of as far as sentiment and perception was concerned, was the confidence in South African government's leadership. Leading officials were often criticised for both their stance on the HIV Aids debate and on their stance to Zimbabwe. They were seen as not proactive enough and in many cases almost seen as sluggish.

In my dealings with offshore analysts/offshore economists, one or some of the factors that were quoted, were the Zimbabwe and Aids issues and the net effect of that being that it did not inspire confidence for direct investment into this country. The lack of foreign direct investment is clear for everyone to see through the course of the past year and unfortunately inflows of foreign direct investment would have certainly helped shore up the currency.

However I would like to make the point that although there was this negative perception about Zimbabwe and the stance on the HIV Aids issue, that it was not the only two issues that were of concern to offshore investors. In fact they listed many structural problems with this country ranging from high levels of unemployment, income, inequality, fundamentally very tight labour laws and there were a host of others but predominantly those three and those are evident even if one looks at the rating agencies statements which are Standard & Poor's, our sister company Standard & Poor's ratings, made such a statement just a short while ago. I believe it was in February some time and again the same issues were highlighted.

So it is not to say that Zimbabwe and the HIV Aids debacles were the only political reasons that there may have been in the course of a one-sided perception on the currency. I believe it was a combination of those two which were quoted more than any of the others coupled with the underlying structural problems that South Africa is facing at the moment which would have resulted in this very poor perception. Given the way Zimbabwe as a country has proceeded into crisis thanks to those land redistribution policies adopted by them, it is clear that when an announcement by an official of the PAC, or be it a minority party, comes out in support of such policies, that offshore investment perception certainly does not improve. In fact I think at the particular time it was heard quite dramatically. It is for that reason that I actually welcome the comments made by the government, the South African government that the rule of law in this country is important and I feel it is important to acknowledge that but at the same time the question remains whether this quite diplomacy tactic by the government in view of Zimbabwe, did not contribute to the weakness in the currency.

If I can move on now to the next slide, chart 4.

Page 457? --- On page 457, correct. It is quite clear from this chart with the September 11 marked by the vertical line drawn through this chart, that an accelerated depreciation begins from this point on. Coincidentally if one looks at, and if I just progress to the next series of charts which sees the US dollar versus some of its bigger counterparts in the euro, I believe it is the Japanese Yen and the Great British pound, on chart 5, 6 and 7 on pages 458, 459 and 460, that it is clear that from September 11 onwards, we have the dollar appreciating against even these major currencies - these currencies that do not have the same stigma attached to them as the South African rand, these currencies which are significantly more liquid and these currencies that for the most part compared to South Africa, would have been seen as relatively safe haven currencies.

Now the point of this is that if the major currencies weakened against the likes of the US dollar, it is a lot more easily understood how an emerging market would suffer even more so. September 11 raised the risk profile of investments with emerging markets already having a risk profile and risk aversion I believe on that date was tightened even further. We saw the South African rand weakened dramatically on that day and in fact from that point forward stories of risk aversion were circulating through the market far more than they had done in fact since I can remember in the ... since the 1998 emerging market crisis.

So we have a situation whereby the liquidity of the currency is now lending itself to the rand being speculated on. We have a situation where there has been a great deal of risk aversion, a heightened risk profile of emerging markets as Argentina starts to build as a crisis and all in all I think this in itself, the September 11, as was seen from I believe it was chart 4, this accelerated depreciation seen in chart 4, seems to take place from September 11 onwards illustrating this point.

If I now progress through the charts that we have spoke about .. (intervenes)

Just a correction, Mr Glynos. I notice also on chart 4 on page 457, September 11 did not print and on the next chart on page 458, chart 5, just turn to chart 5. --- Yes.

At the top there the blue September 11, does not appear on the printed version. --- Mr Potgieter, I honestly cannot explain that. You see I thought I had given this particular copy of the slides to the printed.

Whatever the reason, will you just compare as you go along and make sure .. (intervenes) --- I will do.

CHAIRPERSON: Let us move through the slides. --- I need to go back to, if I may just go back to chart 4. A point that needs to be raised, is the Argentinean crisis and the fact is although ratings agencies had on many occasions mentioned that a debt crisis in Argentina had been building, if I am not mistaken, the Argentinean crisis itself built to its extent, well was covered to a greater extent towards the middle of last year onwards. Coincidentally it is when we start seeing the rand's depreciation start to accelerate. I suspect that through the rand's liquidity and the fact that it is now open to hedging speculation, that those market participants or institutions that may have been exposed to the Argentinean debt crisis, started to consider hedging possibilities in the South African rand to hedge themselves against losses they would have sustained through the Argentinean crisis. I believe it is an important fact because September 11 builds on that Argentinean crisis and September 11 was almost the straw that broke the camels back to start seeing the acceleration increased dramatically.

Yes, let us move on please. --- I think just on that point, Commissioner, I believe the speculation probably would have taken place through short positions that were taken on the rand. They could have done this through direct into the spot market. They may have done it in the forward market and certainly data that I will be showing you later today, will confirm this. No proof of this as yet but the Reserve Bank will know full well whether or not they were policing their exchange controls at the time to the extent that they are the moment. I believe that they probably were not given the announcement of 14 October.

MR POTGIETER: Will you move forward to your next slide? --- The next point I want to make does not really pertain to the slide that is on. I can blank this out for now or just in fact move forward through the ones we have spoken about.

The Reserve Bank's reaction is the next point that I want to speak about.

The page in the statement?

CHAIRPERSON: Page 432.

MR POTGIETER: Yes please continue. --- The reaction by the Reserve Bank when it almost seem or the perception in the market was that the rand's weakness seemed to have no end, I believe that the Reserve Bank was almost forced either by political pressure, through media coverage, possibly internal pressure to make a move to try at least to stop the perceived speculation that was taking place at the point in time. Hence the statement of 14 October whereby the Reserve Bank announced that it would require underlying proof of an underlying transaction to every trade that took place in the currency in order to do this. I believe their attempt to stop speculation was fairly successful. I believe that that is exactly what they accomplished and if we have a look at chart 9 on page 462, that we see an incredibly sharp drop off in liquidity on the chart which is indicated by the volume patterns at the bottom of chart 9.

Where does this chart come from, Mr Glynos? --- This chart is obtained from my Reuter screen. It is Reuter's data. Although the physical rand, the volumes that are quoted there, are not actual volumes that are traded. It is a measure of trading activity through the amount of contributions that banks would make to the rand/dollar market. In other words every time that a deal is made, a contribution would be made to Reuters and that contribution would be added to their data.

Could you explain the contribution? You are now referring to the bottom part of chart 9. Is that correct? --- Correct.

Just explain that concept contribution. --- Okay. The term contribution is in fact if a price is made on a particular deal, that price will be given to Reuters themselves. That giving of information to Reuters is considered a contribution to the data which Reuters collect. The more contributions that go through the market, the more indicative it is of the amount of trade that is taking place in the market and is therefore a very good proxy for the amount of volumes that are moving through the market. Although that date at the bottom cannot be taken as a physical measure of actual volumes traded, it is a very good measure of the trade, the levels of trading activity that took place through that period in time.

Based on these contributions? --- Based on these contributions, correct.

Please continue. --- As can be seen from the chart, these volumes declined quite dramatically towards the end of November and certainly going into December and coincidentally exactly where the volumes decline sharply, is exactly the point where the rand starts to depreciate at a vastly accelerated rate. Certain things need to be read into that.

Firstly that it must have been part of the speculation that was adding to the liquidity in the market which made the market more difficult to move in such big movements. The minute the liquidity in that market dropped off, there was a scarcity of dollars in the market. We had a very negative perception through all the factors that I have mentioned to you in this testimony so far ranging from the building crisis in Argentina, Zimbabwe, the political perception of South Africa's governance, the NIFP and the forward points problem which I was explaining to you through the importers and exporters. This perception of a one-way market was exaggerated grossly and I believe that it was through this lack of liquidity that we saw the massive increase or the massive rand depreciation that took place through December.

You may ask why the liquidity did not decrease immediately after 14 October and that is a valid question. I have two possible replies to that. The first possible reason that I could give was that any speculative positions that were taken in the market at the time would take some time to unwind. They would not be able to unwind it immediately because that flood of dollars would obviously flood the market with dollars, the rand would strengthen and they would lose out on the profits that they could have otherwise made. So what they would effectively do, is carefully sell into any US dollar strength and feed the amounts into the markets gradually over a period of time. The second factor that I believe may have played a role is that the Reserve Bank may not have started policing the exchange control regulations immediately after that 14 October announcement. I do not have proof of this, but I suspect that having spoken to one or two traders in the banks that the actual investigations only started a short while after which may explain the delay in the sharp drop off in volumes as well.

<u>CHAIRPERSON</u>: Yes let us move on. --- Remaining on the same point, if we now look at table 3 on page 463, we see data obtained from the Reserve Bank, publicly obtained data from the Reserve Bank illustrating the same point that the previous chart which was chart 9, exhibited. If one looks at the table, it is very clear to see especially from in the category of the 15 largest non-residents which is the upper section of the table that towards November and December the purchasers and the sales, in other words the trading turnover that was taking place, declined quite substantially especially on the purchaser's side of the equation, purchasers in the spot and forward markets, dropped in November to 4461,1 and 1 100 respectively and then dropped even further in December to 3582,7 and 454,3 in the forward rate.

Interesting to note that if we look at November, we see a similar decline but we still see that transactions in the spot market were still fairly active at 5386,6 in November. This is the sales of foreign currency which is more or less the same levels that were seen in September of 2001 at 4392,8 in the spot market.

Now what that tells me is that this could quite easily also explain my theory that there may have been an unwinding of speculative positions in the market at that time where a sharp decline seen thereafter in December to 3942,5 as was illustrated in chart 9.

What this shows to me is that the foreigners left the South African rand market. --- Correct. I would say that the foreigners would have been leaving the South Africa market but it is interesting to note that they were leaving the South African market after that October 14 announcement which tells me that they left the market directly because they did not have an underlying transaction and by implication therefore may have been speculating in the currency.

Finally we move on to, with that in mind we move on to the role of speculation as a very important topic of debate. Speculation on the currency may have been the initial driving force of the rand's weakness as the South African rand was used as a possible hedging tool against the crisis that were seen in Argentina and certainly it would have been a fantastic hedging tool to use given the negative perception in the market. However, speculation *per se* I do not believe is all bad for a currency. In fact a speculation can work both ways and therefore I believe that certain underlying issues structural reforms in a country such as South Africa need to be taken care of before global perceptions change in their favour.

Now there is no doubt in my mind that speculative activity increases liquidity in the market. It increases liquidity and by increasing liquidity makes the market more stable. Quite honestly there is a lot more being traded in the market and therefore the effect of one/two large deals is far less of an issue or creates far less of an impact than what was seen in the South African rand when liquidity dropped off sharply in December. A good example of how speculative activity need not result in a one-way market, is the example of chart 10 on page 464 which shows a graph of the Swiss frank/dollar.

Now it is true that these are well-established countries both Switzerland and the US and that the you not have the same structural problems as South Africa faces at the moment but it is fair to say that speculative activity on the fundamental news that was perceived through the course since April 2000, has been the main result of this currency remaining in a fairly tight range for that period although the graph shows the movements as quite exaggerated. If you look at the left-hand side, the movements in percentage terms will be far far less than the movements seen in the light of our currency.

<u>CHAIRPERSON</u>: Just explain the purpose of this graph in relation to speculation. --- Well, it is for me to show a market which is considered efficient. It is a market that we know has a lot of so-called speculators in it that do add to the liquidity and the fact of the matter is that from April 2000 to February 2002, the net movement has been, you know, around 1,65 to around 1,70. That has been the net movement in the currency over that time frame and my point exactly is that at no point do we see the dramatic moves percentage wise in this currency as we do in the likes of the rand having weakened to the extent of well over 30% through the course of the year.

But what conclusion do you ask us to draw from that? --- The conclusion I ask you to draw is that speculation as a whole is not something that needs per se to be taken out of the market. In many cases it can actually help the market.

So you are asking us to accept that there was speculation in this market? --- What I am saying here is an example of a market which is very heavily traded and contains a lot of speculative activity in it.

<u>MS QUNTA</u>: But you see, Mr Glynos, in that market, that chart goes up and down and up and down. --- Yes.

And the impression I have from our rand is that for the whole of last year, the rand, and we have had very witnesses during the course of the week saying that our rand, and you said it, it just depreciated consistently like 30% you have just mentioned. So can you effectively and realistically draw the conclusion on that basis because there is a mark up and down there? --- Yes, all I want to really illustrate through the illustration of this chart really is that speculation is a big part of this market and despite speculation being a big part of ... (intervenes)

Of which market? --- Of the Swiss frank/dollar market, speculation is a big part of that market and despite the fact that speculation is a big part of that market, in the longer run the weakness in that currency versus the dollar or the movements in that currency versus the dollar, are not very big at all. So it is not to say that speculation *per se* is the main reason for the rand's decline. I believe that it is underlying factors which allow speculators the opportunity to speculate on the rand. This chart over here is simply illustrating that a market that has a great deal of speculation, does not necessarily have to weaken by 30% odd. There must be something more to it than just that. Speculation as a factor is not the sole driving force of what determines a currency.

Getting back to the statement, this brings to question, we are still within the role of speculation page 436 in the statement. This brings to question the removal of exchange controls to possibly create a free market in the South African Rand. Obviously freeing up exchange controls completely, in other words abandoning exchange controls would add a great deal of speculation to the market. It would open the door for a huge amount of speculative activity to take place but at the same time it would also render the market a free market without any rules and regulations which may impact in some way or another on the efficiency of that market and in doing so, may result in the market moving far more according to fundamental factors than has been seen through the course of the past or the past decade almost specifically in the course of the past two years.

There is an opposing argument to that which would raise the question of the risk of abandoning exchange controls. Certainly there is a high risk involved in it and I have yet to meet a person that can definitively tell me that abandoning exchange controls will certainly help the market regain its strength and therefore policy makers are in a difficult situation in where they would maybe like to increase the liquidity in the market and improve the efficiency of the South African rand market but may not be willing to take the risks involved of doing so and the risk that I am talking about is possible the rand being used as an even greater emerging market hedging tool than is currently being seen and for that reason the IMF has in the past, if I am not mistaken, and I know that it is the present policies of the current Reserve Bank that abandoning exchange controls cautiously, in other words removing them gradually over a period of time maybe the far safer option. However, I must add that if that is the policy that will be adopted in the way forward, I think what needs to be kept under control is the speculative activity. Having a market that is partially ... (intervenes)

CHAIRPERSON: Just pause there for a moment. The Reserve Bank has announced that it intends slowly to remove exchange controls and the evidence is that it has removed about 70% of them and that what really remains between total removal and where we are today is the block rand account. You are saying that that is a good policy and it should continue. --- I am not saying that it is a great policy and it should continue. What I am saying is I am a free market economist *per se*. I agree with the view of a free market and I would like the South African rand to move in that direction most certainly. All I was saying was that if they choose to believe that the big bang approach of abandoning, remaining exchange controls completely, might create a situation where the rand is used as an even greater speculative tool. Then I believe that the central bank needs to keep control over the speculative activity that takes place as they have done at the moment.

It will not be a big bang any more. It would be a --- I still believe that it would have a significant effect certainly from a perception point of view. I can only testify that through dealings that I have had with and conversations that I have had with traders that they would welcome the increase in liquidity through not needing an underlying transaction for instance to trade in the currency. So that in itself is really a huge perception that needs to be overcome.

Alright what else? --- That almost concludes my statement. Just in ending off if I can just say again through the course of my statement I have focused on various issues which I believe explained the one-way perception that the rand has obtained through the course of the, certainly since 1998 onwards and very specifically through the second half of last year within the terms of reference, time frame that this Commission is looking at and again I want to reiterate the point that I do not believe that it is just, I find it difficult to believe that it is just the course of a couple of trades that will have resulted in the sharp depreciation in the currency. I have no doubt that there were possibly some speculative and dubious trading activities that were taking place but I do not believe that those trading activities if they did in fact take place, were the sole cause of the currency's depreciation and I think it is an accumulative effect, a compounding effect of a number of factors which I have mentioned through the course of my statement which together resulted in the rand's weakness.

MR POTGIETER: Mr Glynos, before you conclude, there are a number of documents on page 438 up to page 450 of the bundle. --- Yes.

Could you briefly identify those documents and explain to the Commission why you inserted these documents in your bundle? --- Certainly.

And what they are? --- It is a question of giving the Commission a very good idea of the kind of interaction that I have with the markets.

As a market analyst? --- As a market analyst and the product that Standard & Poor's MOS South Africa runs. We are an intraday analysis tool for the larger banks dealing in foreign exchange and bond market transactions. As I mentioned earlier, we effectively like to look at ourselves as the eyes and ears of the trader who may be caught up through his everyday trading activities to clearly focus on news that is released and possible developments on the chart whether they be technically, fundamentally or economically. So what we effectively do, is we monitor these markets and filter out the unnecessary irrelevant information available on the likes of vending systems such as Reuters, I-net, Bloomberg etcetera and we focus our attention specifically to the currency and the bond market. We do so through various pages on our product which do get disseminated via I-net, Bloomberg, Reuters, specifically. Reuters for instance is used as a delivery tool for our product. We write the stories at our home base and then send them through to a centralised server which would then pass them onto Reuters who disseminates it across the world.

What do we see on page 439? --- On page 439 we see the master index of our product as it is called. It is the centralised navigation point for our product.

Now what we see page 439, is that in a sense a table of content for what follows .. (intervenes) --- It is actually an index.

An index? --- Ja, it is an index.

And would that represent the work of a day, hour or a week? --- This represents the work of probably closer to two weeks of constant updating and all of these pages are updated fairly regularly. It is difficult to direct a time frame as to how long it would take to, you know, form this entire product in its entirety but effectively each one of these pages gets updated fairly regularly and what I mean by pages, is for instance if we look at master index .. (intervenes)

On page 439? --- On 439 and we look at morning meeting .. (intervenes)

Number? --- I look at number 1 where I have the SA Today. The SA Today is a page that a dealer would call up first thing in the morning and an example of that is seen on page 440. He will be able to pull up the page and see straight away in the morning what he can expect through the course of the day. We will be able to tell him there is X-data available today. In this case it was Golden Forex reserves. The ECB in fact was meeting to discuss on interest rate decision. US Quarter for Productivity on that day was released. All of these pertained to a perception of growth. It gives a trader an insight what to expect through the course of his day and what to watch out for.

A trader subscribing to your service would be able to pull up the index, page 439. --- Correct.

Choose what he or she wants to read and then put it up on the screen and an example of what you call SA Today will then appears on page 440? --- Correct.

And just give us another example, number 2 on page 439. --- Number 2 on page 441 is an example of a page that we used to cover monetary policy in South Africa.

It is called? --- It is called the South African Reserve Bank Insight.

Yes. --- South African Reserve Bank.

Turn to page 442, containing also the little number 3, one will get the details of that? --- Ja.

Sorry 441.

CHAIRPERSON: So Mr Glynos this information would influence the traders' view of what was to happen to the rand? --- Certainly what we pride ourselves of not being affiliated to any bank and therefore we have an independent approach to our analysis and we are not influenced by any trading decisions that may have taken place.

No, no, what I am saying is your information would influence the trader. --- Well, certainly it would either .. I am not saying that they look at our analysis and trade directly on that but it would certainly confirm with you if they had one or open the possibility of a different view which they might not have thought of had they not read the product.

But it becomes part of the information available to a trader on which a trader would take of you? Is that so? --- Yes.

MR POTGIETER: And how much of this do you send out on a typical day, how many of these? --- On a typical day I have an example of .. well, certainly on page 442 you see an example number 3. It is actually, that is an example of technical analysis. This page in particular has done a minimum of twice a day. So we would look at the currency market as it is trading, look at the charts and through technical indicators give by and sell recommendations, give support and assistance levels and the trader would take note of those without having to physically look at the charts themselves. If I have a look at, if you look on the intraday analysis of the master index on page 439, under intraday analysis you see headlines and you see 6A and B noted there. 6A and B are the headlines to the most important aspect of our product which we call a market pulse. What the market pulse is, is constant intraday analysis which takes place everyday. Constant intraday analysis which takes place on stories that may have broken, data that may have been released, a trading suggesting through technical analysis which we have just noticed. We certainly scan the media quite thoroughly on an intraday basis to see if there is a story that has been mentioned which has not been publicised on Reuters or Bloomberg's and we try and disseminate that information to our clients.

And your market pulse index, we will find that on page 445. Is that correct? --- Correct. The first page, yes the market pulse index is on page 445. That is right.

MR GANTSHO: You made mention earlier in your testimony or evidence that you also passed rumours to the traders. --- Yes.

What value do you add to those rumours? Do you verify the rumours? --- Quite often I see them as false. I would say 99% of the rumours that we come across, are completely .. (intervenes)

Are false. --- Ja.

And you do not convey those. --- And we basically put that point across more often than not but yes these rumours may be obtained through normal dealer chat sites. They are obtained through in fact I even had the press calling me have you heard about X or Y and I have not and I will phone around and ask and no one else has heard about it and I will put it onto the product. It is that sort of situation. I just try and make all my clients aware of every possibility that I can pick up in the market.

CHAIRPERSON: I think the question was: are you the source of unsubstantiated rumour? --- I am proud to say no. I think I would be more a case of squashing some of those rumours rather than making them and in fact if I could find the source, I would like to have a word with them.

And are your services, is it a conduit for a rumour? --- Sorry, I did not quite hear it?

Is it a conduit for a rumour? --- Conduit implying?

Well, that you get the rumour and that you pass it onto your subscribers? --- Ja, ja, that are rumours that we pass on. Like I say we pick them up from .. the sources are, there is a huge amount of sources really.

MR POTGIETER: But will your client know that this is a rumour? --- Yes.

Would you identify it? --- We identify it as a rumour and make it very clear whether we think there is any truth in the matter and whether we think it is pure and whether we think it is false. For instance almost every year without fail come towards the end of the year, there is always speculation about Standard & Poor's ratings and what the rating is that they are going to give South Africa. That happens regularly. It is almost expected that we are going to hear a rumour at that particular point in time and every single time it has been discredited. That is the case with most rumours although some rumours do have a negative effect on a market.

CHAIRPERSON: Any further questions?

MS QUNTA: Ms Glynos, I want to take you back to the, you were indicating the interest differential, the basis for calculating the forward points and you were saying that that is a mathematical calculation. --- Correct.

Of the interest differential. --- Yes.

Now we have heard evidence for the best part of this week and I am not certain that it was in the forward market that they were talking about, but I think so, and you can correct me if I am wrong, that in fact it is not a mathematical calculation and it does look at the future. It does not simply look at what is going to happen now. It is an analysis or an estimation where the rand is going, based on a whole range of factors some of which you have mentioned. Could you clarify that? --- Ja, I do not believe that is entirely correct. It is in fact a mathematical calculation. However, what does come in for question is the future of monetary policy. If for instance interest rates in South Africa are seen to be increasing, in other words if we see really bad inflation for argument sake and we know that the Reserve Bank is targeting inflation in order to bring it down within its ranges, it will give a signal to the market that interest rates may have to be raised in order to stem consumer demand thereby reducing the inflation impact of that growth environment. That perception of interest rate like in the future raises the difference between what South Africa's interest rate would be seen to be and what the US's interest rates for argument sake were seen to be and those forward points immediately increase. There is a certain amount of perception that comes into it from that side of things and certainly when we have seen the rand declines substantially through the course of the past few months, especially through the course of December, we saw those forward points escalate dramatically. They escalated dramatically because there was a fear and a perception in the market that the interest rates would have to be height significantly. They were height in January. There is expectations that interest rates could well be height again at the coming weeks monetary post a committee meeting and the forward points to some extent reflect that. So there is a perception, there is some element of forward looking perceptions that come into the forward point but I was talking more theoretically. It is a mathematically calculation and it really comes down to the difference between interest rates of the two countries involved.

But within that mathematical .. to reach that mathematical calculation, you have to take into account some of the factors that you have just indicated because this was told to us by a trader. --- Yes, there is a risk element that does come into it. I think the point that I was trying to make in showing you the examples of that table and of the forward points, are that there is, there is definitely an unknown factor and it is a risk factor that gets added into those forward points as well and certainly that has to have a role to play but for the most part it is the calculation of the difference in interest rates with the risk factor added onto that and a perception of an interest rate movement over that as well.

Then as a follow-up question, you have indicated that the dramatic fall in December it, when you were trying to tie the pinning of the market to the 14th of October statement. --- Yes.

You were indicating that perhaps the dramatic fall two/three months later, it is because people had taken position then and the effect of those positions were filed then maybe a month/two months later. Is it your view or your evidence that it therefore deals that the effect of the deal on the exchange rate are not necessarily seen at the time that the deal is made, it put money first, that effect put money first at a later stage. --- No, I think the effect of any deal that gets made, I think it is felt almost immediately. If dolars are required in the market for a particular deal, those dollars are required in the market. They are going to have to be purchased out of that market and therefore the effect on especially if the liquidity is thin, it is going to be exaggerated to quite a large extent when you have such a big order for argument sake, let us say dollars. Therefore I think the effect will be quite immediate. What I was trying to point out in relating the 14th of October to the decrease in the volumes, is that I believe just purely because of the 14th of October statement by implication it implies that there must have been some speculative activity taking place in the first place. Other why make the statement? If we can take that to imply that there was speculation taking place, up until that statements it would have taken some time for speculators to unwind those positions and that is why I saw the effect only coming, the sharp drop in liquidity only come through the end of November and beginning of December. That is what I am postulating.

Okay, then just the last question. In table 3, you mentioned there you looked at the lack of liquidity. --- Yes.

And I think you were referring there to the exhibit of the non-residents trader. --- Correct.

Where did you obtain those figures? --- I obtained these figures from the Reserve Bank themselves or through the Commission which directly got them from the Reserve Bank.

So in effect this would be a trade taking place onshore trade that you are referring to. --- Correct.

But onshore trade by non-residents? --- Correct.

Is it possible to obtain trade for offshore trading? --- Madam Commissioner, I have tried so many times. I have contacted, there is two sources where you are going to obtain that information. The first is going to be an inter dealer broker. The second is going to be Reuters themselves through their trade matching system which I think is called Dealer 3000. I have through speaking to market participants, I believe that approximately 60%-70% of the trade actually gets done through the Dealer 3000 system. So for the most part I think Reuters would have more information as to the precise trades that went through the market than anybody else would.

CHAIRPERSON: Mr Glynos, I think you spoke to Reuters 3000. --- I spoke to Reuters themselves to obtain the volume data from their system and I was told that the information was very confidential in nature and that they were not at liberty to disseminate it to myself.

And that really was your problem that they said they would not disclose it to you because of confidentiality. --- I spoke to and I cannot remember who it was, I spoke to a lady involved with the Commission. I think she works for KPMG who tried to obtain the data as well and was given a similar story.

MS QUNTA: The last thing that I want to raise with you is the work that you do as a market analyst and we have heard that you say that rumours sometimes circulate and you passed those rumours on but you have indicated whether it is false or possible. --- Ja.

Do you think those rumours, you know whether you say to your clients we think there is no substance to rumours, does it sometimes move or have an impact on the market to your knowledge? --- I think it does. Quite often when some rumour is ... (intervenes)

Like the finance minister is going to resign. --- Exactly. Something like that. One of the things, I do not think it will directly result in the rand weakening immediately but what it does do, is that it prevents people from selling their dollars.

Okay. --- So again it is just a very poor perception and you know I wish I knew where those rumours started. Again there is rumours that they start from the inter dealer brokers themselves who are trying to spur on trade to earn greater commissions, but again that is not for me to testify to. I am sure there are various sources for these rumours to have a negative impact but more soon the perception and actual physical trading that takes place in the market.

Okay, thank you.

MR GANTSHO: Mr Glynos, you say the statement of 14 October by the Reserve Bank contributed to the drying up of liquidity in the market and you seemed to attribute that to speculators leaving the market. How would you characterise those speculators? Do you think they were illegal speculators or unethical? --- Opportunistic is the best way to describe it. I think they see a situation where the Reserve Bank may not have been policing the market as well as they are doing at the moment and with that door available to them if no one is going to stop them from taking those speculative positions, why not do it? If South Africa is in fact, and we know it was seen as a very good hedge to emerging market contagion .. (intervenes)

That is why you are saying they might have been stretching along. Is that what you are saying? --- We all know that the exchange control rules were in place already. It is not that they did not exist. It is that I do not believe that they were being properly enforced and proof of that obviously comes through when we look at figures from the Reserve Bank which show that a decline in liquidity by the non-residents and the only thing I can ascribe that to is that non-residents obviously did not have the underlying transactions to physical trade in the currency and therefore had to withdraw from it. I f they did not have the underlying transaction, by definition they must have been speculating and it is on that basis which I draw my conclusions.

But the statement does not say that there must be an underlying transaction to speculation. If you read the statement, it does not specifically say that. --- From what I have understood from and having spoken to dealers that they were actually required to their compliance officer, the treasuries, the compliance officer was required to send to the opposite party a statement that would be signed by their compliance officer to state that there is in fact an underlying transaction needed for the deal to take place. I have not read those fine print but I do have it on very good authority that this resulted in significant decrease in trading activity.

In your experience would you have an example of a practice by a speculator that might have been bothering on the illegality of the trade itself? Would you give us .. (intervenes) --- I can give you a theory but it is only a theory. I cannot unfortunately prove it because I cannot get any of the data available to me but certainly one of the theories that have been postulated would be a scenario whereby let us take an offshore participant, call it an offshore participant, an offshore bank, would want to speculate on the currency, they would have an account worth X amount of dollars. Let us call it $100 million lying there and they could use that as collateral to approach local institutions to borrow either a certain amount of bonds or to borrow a certain amount of shares. Those shares could be utilised to sell into this respective markets creating rand which they otherwise did not have, otherwise creating rands which they did not have and then using that rand to purchase dollars using the underlying sell order of those financial instruments as the underlying transaction to short the currency. That is a theory which I come up. Whether it is possible, whether it is true, I do not know. It is a theory that I have heard several times. But again this is speculative.

Last question Mr Commissioner, you made mention of the dilemma that the policy makers find themselves in. You were not the first witness to argue for the - for keeping the market guessing so to speak but I have already heard an argument that says that the market needs certainty and the policy needs to be clear to the market participants, the policies of government. How do you reconcile those two demands or those two arguments? --- Yes, in my opinion I would like to think that the proof is in the pudding. In the case of the NOFP for instance I think it would have been clear to the market through the gradual, I do not know if it needed physical statements suggesting how rapiding the NOFP would be reduced, I believe that just the physical slow reduction of that NOFP through the course of time would have in itself given the market the idea that the NOFP was being reduced. I think that in itself would have lent the perception the Reserve Bank was in fact trying to undo this NOFP. My problem was that it was almost too well communicated, the communication was almost too clear in that quite honestly if you know without doubt that they will be, they will not let those inflows into the market and that they without doubt will not intervene on the currency you know why worry about it, it is not an issue. In fact we know none of those inflows are going to come through the market, so we do not have to worry about them, we can just continue speculating. However if some of those inflows periodically were allowed into the market it would have almost been the passive form of intervention.

Thank you. Last question. You said in your interactions with foreign investors in particularly there is a question about the structural problems in our economy, are they saying these are new problems or are they worsening? --- No certainly not new problems, and I think it must be said that the government has definitely been making strides towards alleviating those problems. I think the problem is it has been a long standing underlying factor which whether you like it or not is there. It is there and unfortunately it is a negative and you know you can be addressing those issues but until they are fully addressed and I am sure we can all appreciate the fact that you know unemployment rates of around 30% are even if improving are still too high and this is - the point I am trying to make is that it comes down to a perception at the end of the day of the underlying structural problems that South Africa faces. It is not to say that particularly nothing is being done on the issue, the fact is those structural problems still exist.

That is all.

CHAIRMAN: Any further questions?

MR : No questions.

CHAIRMAN: Thank you we will adjourn for tea until twenty to twelve (11:40).

COMMISSION ADJOURNS ON RESUMPTION

AZAR INDEBE JAMMINE (d.u.o).

EXAMINATION BY MS MR POTGIETER: Dr Jammine your CV, your abbreviated CV is on page 348 of the expert bundle in front of you. Would you please summarise your CV for the commission. --- Certainly. Commissioner I did my under graduate studies at the University of Witwatersrand a BSc. in mathematics and mathematical statistics. I did my honours in both economics and statistics at Wits. During the period I was employed as an investment analyst with Sen Bank and subsequently was employed as an investment analyst at stockbrokers Martin and Company who are not JT Morgan. In 1975 I went to the London School of Economics to do a masters in economics and then proceeded after that to do a PhD in economics which culminated at the London Business School but it was a lengthy process and in order to pay my way I did a lot of consulting for British companies but consulting work around the world. Once I had completed my PhD and done a post doctoral fellowship at the Centre of Business Strategy at the London Business School I returned to South Africa in December 1985 and took up my present position which is chief economist at Econometrix.

Yes Dr Jammine in the expert bundle on page 296 and further, right up to page 421 there is a copy of a statement prepared by you together with slide printouts is that correct? --- That is correct.

Do you confirm the content of your statements? --- Yes I do.

Will you then please proceed to deal with your slide presentation. You need not refer to the, or read the statement into the record. Pace yourself as far as possible to finish your presentation by as close as possible to 13:00. --- Certainly. Commissioner I am going to go through the first part of my statement a little faster than is reflected here because it is mainly of an historical background but I think it is important to put the decline in the rand that we saw late last year into the context of the history of this and from a point of simplicity I put here the long term real chartered the long term real effect to the exchange rate of the rand. Essentially what you see in the blue part is the period during which broadly speaking with the exception of two and a half years between February 1983 and August 1995 we had a dual exchange rate system in place that is a commercial rand through which all commercial rand transactions were in place and a financial rand through which all financial transactions dealing with shares and property were conducted and since we had dual exchange rate system in place all the way then through to March 1995 strictly speaking it is not correct to relate what has happened, what happened before then to what has happened since then. Nevertheless what we see is a second phase between 1995 and the year - beginning of the year 2000 during which the rand suffered two big sell offs, one in February to June 1996 and another one from May 1998 to August 1998. Those were important because that saw the first signs of the manner in which globalisation was starting to affect the manner in which speculators especially sitting in offices in New York and London were able to start playing around with the outcomes, economic outcomes of many developing economies. It saw a massive increase in their power to influence events. Then there is a third phase where I personally see what we are talking about as the sell off of the rand in the fourth phase last year being really just a continuation, a build up of what began at the beginning of the year 2000, not 2001 but the year 2000. I will not go into the dual exchange rate system in too much detail other than to indicate there you have got the chart of the financial rand versus the commercial rand... (intervenes).

That is page 350. --- 350.

As you go along you must please in each case indicate the page number. --- Certainly. Followed by the - yes sorry.

MS QUNTA: Sorry what is that page number?

MR POTGIETER: This is chart 3 on page 350 madam commissioner.

--- That shows you the history of the financial rand relative to the commercial rand until the financial rand was abolished in March 1995 and you can see between February 1983 and August 1985 the financial rand had been suspended for that period but reintroduced after the sharp fall in the currencies in 1985 when the debt standstill crisis took place. If we carry on to the next one that shows you the very aptly the two big sell offs of 1996 ... (intervenes).

Dr Jammine, you will have to refer to the chart number. --- Chart 351 shows you the two sell offs of the rand against the dollar in 1996 and again in 1998 and if - yes.

MS QUNTA: Perhaps Dr Jammine if, I know it is a bit of a problem for you the flow of your presentation but if you could mention the chart number and the page number, do you have the page number in front of you? --- The page number from the statement?

From the bundle.

MR POTGIETER: Dr Jammine refer to both, chart number 4 on page 352. --- Yes.

MS QUNTA: For the record purposes. --- Chart 4, 352, my fear is if I spend a long time this preparatory part will take a long, will delay the testimony. From pages 300 to pages - yes right now these charts refer to the initial part, they were just to show you the four different phases that I am referring to. Now this is the third phase from the beginning of 2000 through to 11 September 2001 and that is referred to on page 297 of the bundle and page 352 of the charts. The next one shows in amplified form also on page - this is page 298 of the bundle and chart on page 353 it shows the crescendo of the decline of the rand in the latter part of September 11 all the way to December 20 and beyond that. Now moving back to the analysis of those four phases the first one just shows the manner in which the financial rand continuously traded at a discount to the - this is now chart 354 and the discussion is from pages 299 through to 304. Essentially what it shows is that by isolating financial transactions away from commercial transactions and the commercial rand was - the financial rand acted as a shock absorber at the time to the commercial rand, but it was not a fool proof shock absorber because as you can see in 1985 from chart on page 355 and the commentary on page 302 you can see that the commercial rand notwithstanding the existence of the financial rand the commercial rand experienced a tremendous amount of volatility after the - immediately after the debt standstill crisis of August 1985 when Chase Manhattan basically demanded that the government repay all its short term debt at one shot and suddenly the government had a major cash flow problem and creditors were worried that they would not see their money again. The reason why I have put this in is just because later on I refer back to this chart and show how the sell off that we saw in the latter part of 2001 was similar, the only precedent for such a sell off was the one that we saw in 1985 but the difference between the two was that in 1985 there was a fundamental debt standstill crisis in the country, a major economic crisis in the country whereas in the latter part of 2001 there was absolutely no such economic crisis around.

Dr Jammine you can just refer to your slides, do not worry about your text because we will follow the text. --- Okay right thank you. Then if I go to chart page 356 I want to show that an important change occurred around 1980 when until 1980 the reason why the rand had been quite firm and strong against other international currencies was because inflation in South Africa was more or less in line and high through the 1970's, in line with American and British and so on inflation but from 1980 onwards inflation in South Africa remained high whereas inflation in all these other countries fell. Now according to economic theory in order for a country to maintain its competitiveness its exchange rate has to fall in line with the difference between inflation in its country and inflation in its trading partners. So it was virtually an economic theorem that says that ever since then because inflation in South Africa had been higher than that in other countries the rand should have continued declining in nominal terms, but the fact is that it has fallen even after taking into account the inflation differences it has fallen over and above what has been warranted by that. The gold price obviously also helped keep the exchange rate strong, page 357, chart 357 but this is the run up to the debt standstill crisis that I am referring to at the moment we see how in 1984 we started running into difficulties, huge capital outflows partly as a - page 358, interest rates had to be raised fairly dramatically in order to stem this outflows which were partly driven by political factors and then we saw the major debt standstill crisis leading to - on page 359, leading to a 30% depreciation of the rand over a very short period of time. We then saw a period of stability around 1995 from immediately after the financial rand was abolished and I find it rather interesting madam commissioner asked in the previous session whether there is a time lag between measures that are taken and speculators actually acting on those measures and 1995 was to some extent an example of that when even though the financial rand was abolished in March of that year the market was fairly stable for another 11 months and suddenly as you can see on page 360 in February 1996 the rand suddenly starting experiencing its very first sell off. That began on 16 February 1996 and as you can see that in a sense marked the beginning of this long big decline that we have seen ever since then. Breaking the stability of the exchange rate that had been seen in 1995. Now there were several reasons given for this decline in 1996 and they may be pertinent even to the present decline. Firstly there were signs that the South African economy was beginning to slow, secondly on 13 February three days before this President Mandela at the time pledged his support for Colonel Gaddafi in Libya and this was interpreted as a danger signal that would encourage American speculators to start hitting the rand. The third thing was that the government in November 1995 had introduced the assets swop mechanism whereby South African institutions could exchange to get hold of - could invest abroad so long as they insured that they got a foreign counter party to buy their shares and it was possible that these foreign counter parties three months later having gained control of South African shares then started selling them off, they had bought those shares because they were offered a discount and in this way they were now able to sell off those shares at a profit and this was given as a reason why we had a sell off in 1996 and could have been a reason why the rand also fell significantly through to in 2000 and 2001 via this asset swop mechanism. The other reason given, once the fall in the rand had started taking place was that Trevor Manuel was appointed as finance minister, the first non-white finance minister in the country and we know that foreigners, the foreign investment environment is dominated by people sitting in offices in New York and London who may have certain prejudices about such appointments and later the government of national unity broke down and finally the director general of finance at the time, Estian Calitz also resigned. All leading to this loss of confidence. But above all there was a perception that South Africa's government did not have a well defined economic strategy and it is interesting that the fall of the 1996 was brought to an end by the government almost panicking into introducing its policy of growth employment and redistribution, macro economic policy and the moment it did that it gave the impression of knowing where it was going, well that was the perception and the rand basically stopped falling as precipitously. And you then had a long period of relative stability through until the latter part of 1997 where you can see the first, in charge 362, page 362 the first real broad manifestation of the manner in which globalisation was leading to the buffeting of developing countries. All the currencies of Asian countries went down together by something like 30%, 40% and the closest example of what happened to the rand late last year can be seen in what happened to the Indonesian Rupia around the end of 1998, but for a while if you look the rand did not fall together with all these currencies and we thought that we were having a honeymoon period. The next chart page 363 reflects a few more of these currencies in the manner in which they all went down together .

What is the meaning of your word virtuous there? --- Virtuous because many reasons were given at the time as to why Indonesia, Philippines, Thailand and Malaysia were all seeing their currencies plummeting, each one had their own economic reasons but interesting Taiwan, Singapore and Hong Kong were seen to have no real major economic problems and yet their currencies too fell. So I distinguished between those countries that were seen as having certain economic weaknesses and those that were seen as sound, notwithstanding that they all went down together, all tainted with the same Asian label. Well that Asian label was then transformed into a general emerging market label eight months later when South Africa's rand together with the Brazilian Real and the Russian Rouble and other currencies also were hammered. It also coincided with the announcement that - well in May 1998 the Reserve Bank made what is considered by many as a critical error by trying to intervene ... (intervenes).

MR POTGIETER: You are now no page 364. --- On page 364. The Reserve Bank made a critical error many people say by trying to intervene to prevent the rand joining all the other currencies going downwards and that saw the country's net open foreign currency position expanding enormously from $12 billion to $24 billion in the space of a few weeks and we are still paying the price for that many people say. But it also coincided with the time that the announcement was made that Tito Mboweni would become governor of the Reserve Bank. I will come to that later on. But what, on page 365, you see how the Reserve Bank acted at the time to stem that decline, the second big sell off by raising interest rates to 25½% and on the next page ... (intervenes).

But that was still, was that before Mboweni's appointment? --- That was at the - there was an announcement on June 25, 1998 that Mr Mboweni would be - was being appointed to take over governorship of the Reserve Bank in August 1999 so he was given a one year period in which to acquaint himself with the going.

Yes but he Reserve Bank intervention mid 1998 on page 364. --- That was not, that was under Chris Stals.

And also the interest rates hike. --- That was under Chris Stals yes, that is right. And the hike in interest rates then as you see on the next graph page 366 caused the South African economy to slow down to its slowest pace in - since the early 1990's. Now we come to a period of stability through 1999.

Page? --- Page 367 in which we had general elections and a change of presidency in June 1999, 2 June, general elections went off peacefully, 16

June President Mbeki became president of South Africa and everyone was quite happy and then suddenly almost on the first day of the new millennium the rand started depreciating against the US dollar and yet no one could altogether explain this because sentiment, business sentiment was fairly upbeat and there was confidence in the leadership of the country. It is interesting however that the rand was declining against the US dollar at the time mainly because the US dollar was particularly strong against all currencies, but South Africans with their obsession regarding the rand/dollar exchange rate specifically started thinking that the currency was weakening, but anyway not too much attention was being paid to this and sentiment was very good, 4 February 2000 President Mbeki gave a very well received state of the nation address, then Trevor Manuel gave a very good budget two weeks later and on 25 February 2000 Standard and Poors accorded South Africa an investment grade credit rating which meant that a lot of US pension funds could now invest in South African bonds, were allowed to for the first time. The interesting thing is that very good news marked the peak of business sentiment in South Africa, from then on it was almost like a knife through butter, business sentiment began deteriorating from March 2000 onwards and that sentiment was linked to a large extent to a loss of confidence in the president's leadership by foreigners and many South African businessmen. Whether rightly or wrongly and commissioner the views that I am expressing are not my own views but rather the perceptions of what I picked up was happening in the market place. I speak to a lot of businessmen and I gain from interaction with them the way they are feeling. There were a number of reasons for that loss of confidence. The first was the outbreak of the Zimbabwean crisis, the land invasions in Zimbabwe, and there was a feeling that the South African government ought to have taken from the very beginning a much - a harder stance towards President Mugabe to stop those land invasions because the implications of those land invasions were that in the longer run if that starts happening in Zimbabwe then it is going to happen in South Africa as well. Secondly land invasions meant that a lot of Zimbabwean farmers were going to be moved off their land by new farmers who would not have the wherewithal and the knowledge on how to cultivate the crops in Zimbabwe and that would ultimately lead to famine in the country and thirdly there was the fear that that would lead to a huge inflow of immigrants or illegal immigration across the Limpopo into South Africa. So people started looking at the longer term implications of this. At about the same time President Mbeki came out with his views on the spurious nature of the link between HIV and AIDS and that also started leading to a great concern that the South African government was not taking arguably its biggest potential problem seriously, contributing to a gradual decline in the rand. Interestingly though the rand was really only over that period falling against the US dollar rather than against all these other currencies. Thirdly there was the perception that even though the government's economic policy was committed towards privatisation that the government was not fully committed towards this and every time would look over its shoulder at its left wing and start backing off on the privatisation issue. Fourthly there was a feeling that racial polarisation was starting to be exacerbated in South Africa and that the spirit of unity within the nation built up by President Mandela was being gradually destroyed by the attention that President Mbeki was giving to the element of racism in society and you had a number of developments. There was a whole debate about racism in the media, there was a debate about racism in sport, there was a racism conference that was held in these walls as well and there was also TV coverage about atrocities committed by white policemen on black illegal immigrants, all of that started leading to a loss of confidence that in fact that spirit of unity that had been engendered in South Africa was beginning to break down and gradually the rand kept falling against the US dollar over this period. But it is interesting to note from table 368 that you see there, that throughout this period there were other currencies that also fell. In the left-hand column you see changes in currencies against the US dollar between the beginning of 2000 and the end of August and the rand was in good company. The Australian dollar had also taken a beating, so too had the British pound, the Euro had even fallen faster against the dollar but the perception had been created that because the rand had fallen against the dollar specifically it was very weak, whereas in fact it was falling against all - the dollar was rising against all currencies. What changed fairly significantly in the next - you see this on page 369, what changed significantly in September 2000 was that for the first time the rand really began falling even against other currencies as well. It started losing ground against the Euro, not only against the dollar and by the end of the year if one goes back to the previous page you will have seen that the rand for the year as a whole ended off as one of the weakest currencies of all, this is now page 368, the right-hand column shows you - the left-hand column shows you the fall of the currencies up until the end of August, the middle column shows you end of August to the end of 2000, and the right-hand column shows you the whole year and what it tells you is that even though the rand had been following many other currencies down against the dollar at the end of the day it was actually starting to fall more than most other currencies. Then we saw - yes if you can go to page 370, that shows you how the rand lost 10% of its value over that period in real terms. Then we come to 2001 and you can see from this discussion that I ... (intervenes).

This is page 371. --- This is page, I am coming to page 371, you can see the message I have got is I see 2001 as actually being a continuum from 2000 and in a way I feel that the terms of reference given to the commission might be fallacious in ignoring what happened in 2000 as well because you can see from page 371 the trend was in place already long before 2001. 2001 we began with the government giving support to the Telkom trade union, sorry we can stick to the previous one, giving support to the Telkom trade unions against Telkom management and the market said well if that is the case then how can the government be committed to privatisation and so the rand carried on falling over that period of that. However in the second quarter soon after the rand hit R8,00 to the dollar for the first time ever it started strengthening a little and the reason given for that was that Anglo American had purchased De Beers and the method of the acquisition would result in an immediate outflow of R23 billion into the South African economy and that was interpreted positively and so the rand appreciated a little over that period of time. But then from the middle of 2001 onwards the rand's appreciation gradually started building renewed momentum downwards. The first, and there were a number of reasons for this, in July 2001 ... (intervenes).

You are now on page 372. --- Yes, I have not quite got there yet. In July 2001 the PAC encouraged people to invade land at Bredell on the East Rand and this was interpreted by the market as here is the first sign that those land invasions in Zimbabwean being replicated in South Africa and that saw the rand take a knock. But there were two other important reasons why the currency fell, the first was that the ... (intervenes).

Would you just go back to the previous slide Dr Jammine. Referring to the, on page 371 you referred to the De Beers deal. --- Yes.

The commissioner has heard evidence so far that after the De Beers deal the Reserve Bank purchased dollars to reduce the NOFP and that that put pressure on the rand. --- Correct.

You seem to say the opposite. --- To contradict. No it is a matter of timing. When the De Beers deal was announced the immediate interpretation of the markets was that a lot of dollars would be coming into South Africa which is very good, it is a big capital inflow and the rand strengthened but subsequently when the even took place the Reserve Bank took all those dollars and reduced the net open foreign currency position and so physically those dollars did not enter into the real economy, instead they were neutralised, sterilised by the Reserve Bank in reducing its net open foreign currency position, so when the physical transaction actually took place and people saw that those dollars did not come into the economy as a whole then they said oh where are they oh they have been reduced, they have helped to reduce the NOFP therefore there is not enough dollars therefore let us get out of the rand.

Thank you, will you then proceed to 372. --- Then 372 another - in the third quarter of 2001 two important developments started occurring. The first was that the global economy started weakening quite significantly and you can see what has happened since then with the growth rate of South Africa's four leading trading partners, this shows there in growth and industrial production all moving sharply downwards into negative territory. Ironically you will notice the black line which is South Africa itself, I have superimposed that merely to illustrate the extent to which to some extent the falling rand has acted as a shock absorber by helping our exports and preventing South Africa's economy from slowing down in the last six, nine months to the same extent as those other economies. That brings me to another reason which you may or may not have heard as to why the rand may be falling or may have fallen and that is that time and again in recent years the government has given the impression that it regards, has regarded the rand as being somewhat overvalued and that by letting a lower rand would actually help stimulate economic activity by helping exports and the markets have interpreted this to mean that the government has actually actively aided and or been willing the rand downwards to help its own case and some politicians if I may even suggest it I read a report a couple of months ago from the Reserve Bank governor who is not a politician he himself stated well why should we be so worried about the rand declining what harm does the falling rand do on the other, contrary it actually helps our economy a lot , the only people that it harms is rich South Africans who want to take their money out of the country because now they have to spend more rands to take that money out of the country and unfortunately it is obviously being realised now that that was a very - that has been a very shortsighted policy because the first prices that have risen these last few months as a consequence of the rand's steep depreciation in late last year had been not the prices of motor cars and TV sets and appliances but the prices of food, that is what has rocketed because in the interim what we have seen is the old agricultural marketing boards that were in place during the National Party era have been dismantled, we have freed up the market and that means that farmers are now free to export their produce if they get better prices than their local price so that in turn has raised local prices upwards and we have realised that the fall in the rand, the first people that it has hit now are not the rich but the poor. But there has been this perception that the government has had this view that a low rand does not help the poor but only hits the rich and that has helped this process onwards. There has been - as the local - as the international economy started slowing down we see that equity prices internationally from August 2001 started falling quite rapidly and it is interesting ... (intervenes).

This is page 373. --- This is page 373, it is interesting that the events of September 11 took place quite a bit after the trend, the downward trend in overseas equity prices had already taken place. The fact is that as international equity markets started turning downwards so these international investors sitting in their offices in the World Trade Centre or I am saying that deliberately because I believe that the events of September 11 may well have had an element of anti-globalisation involved but these fund managers sitting in their offices in London and New York and other major financial centres started wanting to increase their liquidity. They were becoming more risk averse. They had watched their share prices coming down and so they went for more liquidity. The way they did that was to sell off what they regarded first and foremost as their most risky investments and their most risky investments and their most risky investments were seen to be their investments in emerging, so-called emerging markets. You can see for example on page 374 the close correlation between commodity prices of base metals and the growth in industrial production of South Africa's leading trading partners and so when people saw commodity prices falling they said well if we are going to go for increased liquidity to get out of shares which are the first ones we sell, we must get rid of those assets that belong to countries which have a high link to commodities and that is South Africa, Australia, New Zealand, Chile and so those currencies for example were sold off and you can see on page 375 how some of those currencies in the left-hand column whereby I show you the change in exchange rate from the beginning of 2001, this is page 375 to 10 September 2001, Australia, South Africa, Chile, Brazil they were the big losers in this quest for the protection out of emerging markets, the thrust towards increased liquidity. Then the second big development at that time, on page 376 and linked to Mr Potgieter's earlier question about the De Beers deal was the sudden realisation or the growing, I better - sudden but it was the growing realisation that the off-shore listings by South Africa's five giant multi-national corporations, Anglo American, Billiton, Old Mutual, SA Breweries and Dimension Data was contributing to a massive increase in dividend outflows from the country. As a result of their offshore listings the shareholder base of these countries became predominantly foreign whereas previously it has been mainly South Africa, but having become predominantly foreign with no financial rand to cushion these outflows the dividend payments obviously increased out of the country fairly dramatically and that in turn meant that in order to compensate for those outflow of dividend payments the South African economy would have to generate still higher exports, and that meant an even lower rand to make South African goods that much more competitive to generate that foreign currency. You can see this quite clearly from the next graph on page 377 as the trade surplus due to increased exports the red line was increasing almost commensurately the deficit on the services line was rising to neutralise a lot of the benefit of increased export earnings. Now that in turn resulted in the first after three quarters, on page 378 you will notice the first, the last quarter of 2000, the first two quarters of 2001, all the way on the right-hand side of that graph you see that South Africa had generated a surplus on its current account for three quarters and suddenly because of these increased dividend payments it went back into deficit in the third quarter and the growing realisation that this was happening was weighing down on the rand because the implication was we needed a lower rand to generate better export growth.

CHAIRMAN: Dr Jammine before you move from that I just want to identify, the last three lines are they the first, second and third quarters of 2001? --- No in fact they are the last quarter of 2001 and the first two quarters of - the last quarter of 2000 and the first two quarters of 2001. And then we see in the third quarter of 2001 we go straight back into a deficit situation and that is the last official figure that is currently available.

So the very last line is quarter three? --- The very last line is quarter three, we are going to get quarter four figures in a couple of weeks time when the Reserve Bank publishes them.

Right thank you. --- So what happened in the third quarter were two big developments, deterioration in business sentiment globally which led to a flow out of the emerging markets and secondly the perception that dividend outflows had increased significantly. What then happened of course was September 11 and as you can see on page 379 the rate of decline of the rand against the dollar almost immediately started steepening and the reasons were linked to the preceding argument that I had and that was that September 11 exacerbated the perception that the global economy was in a declining phase and by so doing increased the perception still further or increased risk aversion still further and that increase that drives the flight out of emerging markets and on this chart page 380 you will see over a long period of time the really fairly good positive correlation between the growth in industrial production of the four leading trading partners and the rate of change in the exchange rate of the rand. The corollary to this is that if you believe that the world economy is going to recover in the next few months then you are likely to see the rand starting to pick up as well. But then rather interestingly in October - right in September we had all currencies of emerging markets ... (intervenes).

MR POTGIETER: This is page 381. --- Sorry?

381. --- 381 in October suddenly we started seeing confidence returning a little bit to the world economy. First of all oil prices plummeted as a result of the fall off in the demand for jet fuel internationally following the terrorist attack but a falling oil price would mean helping to compensate consumers around the world to some extent for the shock that they had had.

Then if we turn - if we carry on to table 3. Table 3 I think is a very important one. Because what this shows is on the left-hand column 10 September to 30 September I have lumped the change in the rand against the dollar with the change in many other emerging market currencies as well as the Euro against the dollar and what you will see that in September following 11 September attack that is the left-hand column virtually all your emerging market currencies took a knock. And the rand was in good company then, maybe a little worse than the others except for Indonesia. Then the second column shows you the change in exchange rate during October and there you see again most emerging market currencies continued declining as well as the rand, except here you see Australia, the Australian dollar and the Polish slot is starting to recover so immediately Australia and Poland were regarded as slightly less emerging and closer to the developed economies and as a consequence their currencies started picking up as soon as risk aversion started diminishing and confidence started picking up that the world economy was going to recover in due course but the rand carried sliding. Then you see November and December the second two columns on the right, sorry the last two columns on the right you will notice in both those cases the rand carries on falling sharply but the emerging market currencies as well as the Australian dollar start rising against the dollar, so the complete break there. The whole emerging market phenomenon which was valid in September, and October broke in November and December. From November and December it was the rand alone that was taken for a bath and we can see, I mean December the extraordinary decline. And that is important because the point I want to make about that, it was also, on page 385, chart 385 we see that another reason why the rand should not have carried on ... (intervenes).

This seems to be 383 Dr Jammine. --- Mr Potgieter there seems to be a ...

My bundle is, the one on the screen there is 383. --- In our bundle it is 385.

Is your different? Just replace your bundle then with one that corresponds with the commissioner's bundle. --- This was starting to make a mockery of economists projections including my own because we were looking at the cost of living indices of the world and concluding, now I know this is, I have got 9 January but already by the end of October Johannesburg's cost of living index was pretty close down to the bottom, it may have been around 40, 38 at the time, it subsequently has fallen to 33 but essentially what this tells you and what we were watching all the time as economists was the fact that whereas you could buy a basket of goods for \$100 in New York that basket of goods would only cost you \$33 or \$40 as the case may be in Johannesburg and did not make sense, how can this city, this country which is still doing reasonably well why should this currency be becoming cheaper than the cheapest of all other emerging market currencies. It is not even in line with other developing countries viz a viz developed countries, it is cheaper still by far than all other developing countries. I have since heard that Teheran the cost of living has shot up so we are right at the bottom. Another way of saying it is South Africa became the only country in the world where a Big Mac hamburger costs less than \$1 and there were other reasons that seemed inexplicable as to why the rand should be performing worse than all other currencies. If one was starting to look at economic forecasts for different countries, if you look at page 384 against the leading industrialised countries, forecasts for growth in the South African economy with the exception of Australia looks far superior to what people were expecting would happen over the next year to the UK, the US or Europe. Then on page 385 the same thing can be said with regard to Latin America. Okay Chile, growth prospects were looking a bit good but there is nothing wrong with South Africa's growth in relation to those countries. The same thing on page 386, with regard to Asian countries, with the exception of India and China who had very high growth rates and where it is generally accepted that they would be the leaders of the global economy in decades to come, but with all - in relation to all the other economies South Africa's forecasts of growth were not that inferior. And then on page 387 I have done the same exercise looking at Eastern Europe and the Middle East and again you see South Africa not really inferior to the majority and despite that the rand was plunging. There you see end of October, the accelerated depreciation and the point that I want to come back to that I mentioned right at the beginning, the fall in the currency was on page 389 was starting to resemble what had happened in 1985 and it seemed incredible that the rand should be falling so much faster and even below the levels that took place after the Rubicon speech of PW Botha in 1985. Besides which on chart 390 you see historically how South Africa's in blue GDP growth rate really was highly correlated with the growth in industrial production of our four leading trading partners then suddenly in the second half of last year they were falling out of bed and yet we were not doing too badly and despite that the rand kept falling. Already we had, some people said oh it is because South Africa is far too dependent on minerals, but you can already see prior to this latest drop in the rand on page 391 the dramatic or the significant decline in the rand in 1996 and 1998 had already contributed to a significant diversification of South Africa's export base away from minerals towards other things such as exporting vehicles, exporting machinery and other goods. Then on the fiscal side, pages 392 to 394 you can see how South Africa's budget deficit had come down significantly over the years, on page 392 how that in turn had resulted in government debt falling sharply and projected to continue declining and then on page 394 the manner in which this fiscal discipline resulting from government's (inaudible) employment and redistribution policy has opened the way for increased spending on all other forms of the budget through the savings incurred on paying less interest on debt. So as interest payments are being save now because of the continuous fiscal discipline and fall in the government debt so the government now had increased capacity to spend more on poverty alleviation, tax cuts and the like and despite that which is in total contrast with what was happening in Argentina at the time for example the currency was being penalised. Then on pages 395 onwards I just show you briefly the argument about how structurally the South African economy has also improved in many respects since 1995. The dismantling of import tariffs in the mid 1990's had resulted in a huge increase in the import penetration of the South African economy which you see. Now that did cost jobs but at the same time no page 396 you can see how that encouraged South African business between 1994 and 1998 to invest heavily in upgrading technology, in information technology in other equipment, a huge increase in investment in what is known as machinery and equipment and in turn that has contributed to a sharp increase in the growth of productivity from 1995 onwards. South Africa's productivity has been growing at 5% a year over that period. Nothing shabby to penalise it in terms of its currency.

That is reflected on page 397. --- 397, and then on 398 the increase in productivity in turn has enabled South African businesses to absorb cost increases of this kind much more effectively because the growth in unit labour cost has declined so substantially and that in turn and page 398 shows you how the long term trend of inflation has been falling and if anything that should be a reason as to why the rand should not be falling as rapidly as it used to do, and instead the currency is now falling even faster than it used to do.

That should in fact be 399, not 398. --- Sorry did I not say 399. The next one is the balance on current account. There was a growing perception that this was going to just keep being negative because of these dividend outflows and then on page 401 just repeating the dividend picture. What was not taken into account at the time and which only subsequently emerged was that dividend payments returned to a slightly lower level in the third quarter of 2001. That information only got published in December, so in the period September to December a lot of analysts were taking that huge peak of dividend payment almost as the base from which to keep projecting those dividend payments in the future. At the time I contacted the Reserve Bank and they told me no the big surge in dividend payments that was a once off, it was linked to the manner in which the De Beers transactions was undertaken but the perception was that we were going to go up from the top of that blue line, we would just keep projecting it forward at an incredibly high rate and that contributed to weakness. But in any case even if you did accept that South Africa had a big current account or had moved back into a current account deficit the table on page 402 shows you that our current account deficit was actually minor compared with the current account deficit of the likes of Mexico and Brazil and Colombia and Peru and yet the rand was falling faster than those. To be fair I then, on page 403, compared our current account deficit with the surpluses that exist in Asian countries so we were not doing as well as they did but 48% of GDP current account deficit is really not a particularly serious problem and then on page 404 you see other countries with much bigger current account deficits, Poland, Hungary, Czech Republic, Israel and Egypt and yet the rand was being penalised. The next point to make was that unlike the majority of other developing countries South Africa's foreign debt is actually quite small. It had increased mainly as a result of the fall in the value of the rand, it had increased from 22% to 29% of GDP since 1992 but even that 29% foreign debt ratio is much lower than developing countries with ratios of 50% and 60% of GDP. This is also a legacy of the manner in which you can see that foreign debt fell because of apartheid where South Africa under the debt standstill crisis was obliged to reduce its foreign debt in the late 1980's and repay some of that foreign debt all the time. The next graph shows you how interest payments have fallen as a percentage of total export earnings, page 406 again a very low ratio, only 6% of our export earnings go towards financing the interest on our foreign debt, low by international standards. Finally talking about debt, look at household debt as a percentage of disposable income. Right at the bottom you see South Africa and much much lower than household debt ratios in the likes of America and that is and Britain, and the rising trends of those graphs is of course of major concern to those interested in the outlook for the international economy but be that as it may I just wanted to show how the financial position of the average consumer in South Africa is much sounder from a debt situation than it is in many other countries and yet the rand kept taking a hammering.

Is the effect of what you say that Mr Manuel actually did very well with the underlying fundamentals? --- No question that is exactly the message that I want to, and therefore ... (intervenes).

That he is generally regarded as a very good finance minister? --- Absolutely and despite that he is - despite those policies he is presiding over the weakest currency in the world in the latter part of last year. Besides that if you want to see the success that Manuel has had if you look at the long term economic growth rate of South Africa, if you were to draw a trend line through that on page 408 you would see that in the second half of 1990's the average growth rate of the South African economy has actually improved compared with what it was in the 1980's, so we are on the right track and yet we are being penalised, why. Partly because the market still believes that South Africa long term is facing trouble because the growth rate even at be it 2½% instead of 1%, 2½% is just not enough to eliminate unemployment and the inequality of the distribution of income and therefore if that is the case then you might as well hammer it now - the country now and its currency now because even though things look good for the next few years in the very long term this was the perception we are still worried about high unemployment and AIDS and these problems therefore penalise it. There was another more fundamental problem and that is the growing realisation that even with accelerated economic growth you are not going to solve the unemployment problems because of a mismatch between the kind of skills that are available in South Africa and the skills that are required. The majority of people in this country are unemployable in the growth industries of South Africa. Which are the growth industries? Information technology, financial services, retail and wholesale, tourism, telecommunications, they need people with degrees and technical qualifications and yet the majority of people who can really only work in mining, agriculture, construction, relatively unskilled employ they do not have skills and those sectors are in decline, therefore you can see the problem people have in saying well in the longer term, even if you get higher growth that will not guarantee employment creation and therefore get out of South Africa and of course the skill shortage is being aggravated by the increase reflected in pages 409 and 410. The increase in emigration that has been taking place. It is a very perceptible increase in emigration especially within the business community and of course going hand in hand with this flight to emigrate from South Africa is the desire to ship money out of the country and the investment - the foreign currency allowance of R750 000,00 which most people did not bother about in 1999 and 2000 suddenly in 2001 there was definitely an increase in access to R750 000,00 in foreign currency and I have been told it was meaningful last year, it built up to billions of rands of money being legally being transferred from South African rands into foreign currency. Despite all this ... (intervenes).

Page 411. --- Page 411, nothing economic and political can really account for the why the rand started accelerating its depreciation so sharply from November onwards. As I have shown September and October it did fall because all emerging markets fell but November and December it was the rand alone. And that leads me to believe and here you can see overseas equity markets in November on page 412 were already starting recover. On page 413 you can see how commodity prices also started recovering in expectation of global economic recovery and despite that the rand kept falling on page 414 back to the chart showing you the incredibly low cost of living in South Africa, difficult at the time to explain why the currency was falling so sharply, except for the fact that clearly speculators were now really and truly climbing onto the bank wagon and why not. Forgetting the net open foreign currency position South Africa has the lowest level of foreign exchange reserves of any significant country in the world. As you can see on page 415. So the corollary to this incidentally is that even if the net open foreign currency position is eliminated we will still be seen as a speculative target because of the very low level of foreign reserves. There are two reasons why the reserves are so low, firstly because almost deliberately we had to reduce those reserves in the late 1980's and early 1990's under the debt standstill crisis which formed part of the economic sanctions, so ironically South Africa is still, the fall in the rand right now is the belated effect of the imposition of economic sanctions in the late 1980's and early 1990's.

Dr Jammine why would a country become a target for speculators if your foreign reserves are low? --- Because it means that the only way in which you can intervene to support your currency and dissuade those speculators is effectively to borrow money. Which many countries do and they are given those loans by the IMF and the World Bank and some economists were therefore calling for the government at the time to go and borrow R1.5 billion or R2 billion from the IMF to give them a repository of foreign exchange with which to hammer speculators. Now it is a big debate and I am not going to say whether the Reserve Bank was right or wrong in not using that because after their experience of 1998 Tito Mboweni was very wary of using such valuable loans, foreign exchange to go and try and get these speculators but all the more reason why the speculators just climbed onto the band wagon as a consequence of this and the government has been very reluctant to borrow money from abroad because it believes that in the past many other African countries have seen their demise economically because of taking on foreign loans because they - the IMF and the World Bank then impose certain conditions on them and they do not want to be - and our government did not want to be beholden to having such conditions imposed upon it. So the fact is that we do still remain with the lowest level of foreign reserves of any country in the world and to this day that is the big achilles heel, which makes us vulnerable to speculation. And linked to that was the whole issue of the net open foreign currency position which as you, commissioner which you have heard from many people has contributed to this perception of a one way bet downwards and there is a lot of validity in that. If you look at the graph on page 416 of the exchange rate of the rand against the US dollar from 1999 onwards you can see 1999 relative stability, then Tito Mboweni gets appointed, then becomes governor of the Reserve Bank in August 1999, a couple of months later pledges himself openly to the elimination of the net open foreign currency position being one of his primary objectives and suddenly from the beginning of 2000 we see a downward trend in the rand against the dollar, against the dollar specifically emerging. So it is no coincidence that the rand's long decline started occurring not long after Tito Mboweni pledged himself to eliminating the NOFP. And then on page 417 you can see quite - where the two curves of the NOFP versus the real effective exchange rate you can see how from 1994 all the way to 1999 the two go up and down together and suddenly from 1999 they go in diametrically opposite directions. So this shows you that the fall, the accelerated depreciation of the rand in 2000 and 2001 becomes a complete mirror image of the reduction of the net open foreign currency position. Which leads to the perception of the rand as a wonderful target to speculate against. The next table page 418 another version of which was presented to you earlier this morning by Mr Glynos in his presentation shows you how the other factor that has made the rand so vulnerable to speculation was the high level of liquidity of the rand. In its study of foreign exchange turn over in April 2001 the bank for international settlement concluded that effectively that between 0.5% and 0.6% of total foreign currency trade in the world was conducted in rands and that a similar ratio was conducted in Johannesburg specifically. In other words and I always joke with clients about it when they are talking about a falling rand I say the rand is not a Mickey Mouse currency it is one of the most highly traded currencies in the world even if it should be falling the way it is. But what is so interesting is to see how this tradability in the rand had increased so substantially in the preceding six years. On the bottom left-hand side you can see how in 1995 the rand had only accounted for 0.1% of total foreign currency trade. In 1998 0,3% of total foreign currency trade and in 2001 0.5%, in other words a fivefold increase in the amount of trade in rands over a period of no more than six years. Now you cannot tell me that international trade with other countries increased fivefold. It may have doubled over that period of time but not fivefold increase. So clearly that shows the extent to which the speculative element has increased. And even that - those figures I have given you is probably an understatement of the true increase in liquidity because I have shown you, this is a similar graph to one shown you earlier by Mr Glynos who gave it to me, but the point I want to show is how when the BIS study was conducted in April 2001 on the bottom of that chart you can see near the left-hand side where I show BIS study those are the volumes of trade at that time and by August, September, October look how the volumes have more than trebled, so in other words by August, September, October the rand might have already been accounting for 1½% to 2% of all international trading currencies putting it in not 12th position but 7th or 8th position. Only after the likes of the dollar and the Euro and the Yen and the Swiss Franc, so it was really being heavily heavily traded and that shows you the extent to which - wonderful vehicle for speculation against the emerging market.

MR GANTSHO: Does that mean that there was liquidity in the market and therefore before September the liquidity cannot be used as an explanation for the depreciation of the rand? --- No what I am saying it can be used as - oh no it can already be used as an explanation for the mild and ongoing fall in the rand. What people have been arguing is that after October 14 when the Reserve Bank tried to clamp down on such speculation there was suddenly a fall off in liquidity and that in turn made it an even better target for speculation by speculators because they knew that under the circumstances everyone would then just hold onto their dollars and they would not supply the market at all. If you were an exporter and you knew that the Reserve Bank was clamping down then you would say well I am going to then keep my dollars for as long as possible because I am not going to get them that easily again in the future and that exacerbated the rate of decline still further. No all I am saying is why the rand had carried on falling and falling so sharply in line with all other emerging markets and why it had become such a target for speculative activity. The extent of the decline in November and December was indeed I believe caused by a fall off in that liquidity compared to what had preceded that. It is a subtle change that occurred and it is to do with the way in which the traders actually operate at the time. The other thing that has obviously exacerbated the situation on page 420 I show you how after every big decline in the rand you then get a converse recovery of some of the extent lost and that is a function of the fact that when the rand starts falling steeply importers start panicking, people start saying they have got to insure that at least today, they get at least today's rate because tomorrow it could be down even more, so that exacerbates the rush for foreign exchange by importers and conversely exporters see the falling rand and they say hey wait a moment I can do better if I can just hold off a little longer even if it goes above 180 days and that is something that I think you can look into, the commission, because I am not sure that all exporters were repatriating their funds within 180 days and were taking advantage of the situation. The result was that when you get this process getting under way it builds up a momentum of its own, as importers rush to cover out of panic, exporters hold off and you get an asymmetric situation in the market. But then beyond a certain point you suddenly get a rebound when the thing stabilises for whatever reason and importers start saying well is there any point in carrying on to panicking, rushing to import and then your exporters start rushing to cover back in case the rand rises still further and we saw an element of this starting to occur this past week in fact when the rand rose from R11,50 last week to R10,80 this week when people said hang on a moment you know maybe Zimbabwe will no be such a bad thing, we better start rushing back to bring our exports back in case the rand rises even further. We know it is ridiculously cheap but unfortunately then yesterday you had importers saying this weekend is the elections after all, we better just make sure we get at least R11,00 because next week it could be R12,00 and so you get that. So you get these unwinding leads and lags that actually aid and abet the speculation and the unwinding of speculation. I might add this is a very important point as to why I believe the rand has a good chance of recovering somewhat over the coming year. Finally talking about that blow off in November and December I do not think one should count the role the chartists had in this. There are certain classic chart formations. I do not know if a technical analyst is going to be presenting to the commissioner but for what it is worth from my knowledge of charts you get what you see on this graph page 421 a classic channel formation whereby the rand keeps following a trend steadily within a very clearly defined channel and that gives speculators confidence that as soon as we get to the upper end of that channel they better start taking a profit because it has run its full course then it must start strengthening again. But what happened after 11 September was that the rand weakened to such an extent that break up out of that channel was very important because on a classic charting point of view that meant that it was dangerous, it meant that we were entering a phase of unchartered territory it meant that the currency was going to go crazily downwards.

The trouble with this last phase which is known as a blow off is you do not know where it is going to end. All you know is that the sky is the limit, it could go massively high, and we saw that with the gold price in 1980, and when you are a chartist you know that this gets you the potential for making your potentially most profitable opportunity to make a lot of money, because ... (intervenes)

CHAIRPERSON: What do you mean by a chartist, it is not a term familiar to me. --- Essentially if you look at analysts who analyze these markets you have got your fundamental annalists, your economists like myself who say well you know you have got Zimbabwe and you have got the current account deficit and you have got economic growth and these factors that should - and interest rates that should be effecting exchange rates. Chartists say forget all these fundamentals, the market is driven by psychology and the way you capture psychology is through plotting the trend of a currency movement and as you plot this trend you get typically time and again you see typical formations of the kind of which reflect the psychology of the players in that market. So by looking at the trend you can see the psychology saying that every time the rand falls too much it must start rebounding, but there are certain conventions that keep playing themselves out in these charts and many people try and make money out of this by exploiting those conventions and say ah, you have got a classic blow-off, ah you have got a head and shoulders formation, ah you have got a break of a trend line, or whatever the case may be and they use that psychology. Now, with the classic blow-off you know that this thing - the sky is the limit and it is so interesting. I mean I remember I kept saying, but this is ridiculous for the rand to be falling the way it is, the way it is falling, and then when it got to ten I chanced my tack in those last four weeks, I said this thing can go to 15 in next to no time, it is blowing itself out, and sure enough it happened within three weeks. I had made a fool of myself as an economist, but as a technical analyst I suddenly was justified, because I said this thing is just going to go crazy and indeed it blew itself out and I was actually on a beach in Plettenberg Bay on 20 December when I mentioned to someone, hell the rand closed at 12,50 yesterday, at this rate it could be 14 today, he said "well, it almost got there". I said "what", he said yes, 13,86. It was classic. That is when speculators buy - and I do not believe we are going to see 13,86 again for a long, long time, but any way that is besides the ... (intervenes)

MS QUANTA: Can we bank on that Dr Jammine? --- But the final conclusion that I want to draw from this is, I - there had been many fundamental and economic political and other reason and such like reasons to explain, to justify the fall in the rand all the way, even until November 2001, but what happened in November and December 2001 were purely a function of the technical manner in which speculators operate in the markets. Whether you will be able to find a particular culprit who exploited the opportunity and made a lot of money out of this I do not know. I think, however, there is a probably a far more important message to come out of this and that is that what happened in November and December made me question why is there any point in having exchange controls in place at all, if you cannot stop what happened in November and December. So it is either a case of the Commission finding out why exchange controls did not, were ineffective and for the Reserve Bank then to try and increase the efficacy of such controls, or there is no point in having such controls in place whatsoever. Commissioner, that is my final message.

MR POTGIETER: Dr Jammine, you have overstepped the mark, according by my watch, by seven minutes, but I expect the Chairman will still commend you for your pacing. Of course the two of us cannot be held responsible for further questions by the Commissioner.

MS QUNTA: I have a question and just informal chats with people who have come here to try and understand the mechanics of trading and I was given the impression and this is why I asked the question this morning, but I think I did not ask it very clearly, perhaps because of my lack of technical knowledge, but after the chat with Mr Glynnis he confirmed that yes transactions can sometimes take a while to have an effect and he mentioned, and I want to ask you this really, if you - if you have a trading division in a - say in a bank, and there are certain transactions, say like the De Beers transaction which everyone has sort of mentioned, is a major, major transaction and the transaction side know that this - in two or three months there is going to be X-amount of dollars either coming in or going out. The currency trading section or even not in that bank, but just currency traders generally or rumours go out in the market, this is the money that is going to come in, would that affect the exchange rate in the sense - and this is what I have been told, people then start acting on that rumour whether or not it is going to come right. I do not know if I am explaining properly, but are you able to enlighten the Commission about that. --- Madam Commissioner, you are quite right, it does affect the exchange rate, not because those dollars - not because - in theory it should not affect - if there were no psychology in the market in theory the market would be unaffected by that news, because the market, if there were - let us just assume there was no psychology, the market then says only in three months time will those dollars come in and therefore only in three months' time will the exchange rate react to those dollars coming in, but the people who hear about it say ah, those dollars are going to come in in three months' time, that means the rand will strengthen as a result of those dollars coming in, let me take advantage of that right now so they start buying rands right now, long before that three months time in anticipation of the positive sentiments, so that increases the demand for rands, in fact what we are studying is mostly the opposite kind of way, but people selling rands for that very - for the opposite reason, but - so they climb on and the demand for rands increases now because psychology has told those traders that maybe they should start anticipating and beating the other person by climbing in right now. The famous economist John Mynhard ... (indistinct) always gave the analogy of a beauty contest in his general theory of trading - of employment and interest in which he said the secret of the stock market or any market is not to do, not to see which of the girls is regarded as the most beautiful. I know that you might regard this as a ... (intervenes)

Don't worry. --- But this is actually a famous book. (Laughter.)

I am not a feminist Doctor Jammine, so (laughter) --- The secret about a market is not to do, to act on who you - to bet on who you thing is the most beautiful woman, but rather to bet on who you think everybody else is going to find the most beautiful woman.

Okay. So in - are there instances where transactions have a time lag, because we have heard about importers and exporters and is that sort of the main example that you have given now? --- Yes, sometimes the response to news is instantaneous and other times it takes a long while and it is interesting for example I showed you the NOFP how it began its decline in

January 2000, but Governor Mboweni only spoke about - or spoke about his commitment to eliminating the NOFP probably in September/October 1999, but no one responded for a good few months, and then you have got these very powerful traders who sometimes deliberately say well, we know this and we are going to do this, but we will keep the market guessing ourselves until we feel it is right to be attacked and then they start attacking, and by then you have had a lapse of quite a bit of time going through, taking place.

One of the - you mentioned that the fall in the currency is unprecedented, and I have asked this from everyone who has been here, that a currency can fall by 40% in 20 days and you have indicated that that is quite exceptional and you have compared, you have said that that is how you remember clearly, you said the fall in the currency, it is the biggest fall in the currency since 1985 and it fell even below the levels of when P. W. Botha made that rubicon speech, but couldn't it be argued that at that time our economy was not as open as it is now, in other words there were more exchange control, provisions in place, so that that would have stopped, you know the inflows and outflows from happening. So what I am saying to you is can you really compare that incident with whatever was responsible for what happened in November and December? --- Madam Commissioner that is precisely the point that I tried to make near the beginning is that strictly speaking one cannot compare that situation to what happened in the present situation. Notwithstanding that there are some people who are calling for the re-introduction of the financial rand to generate stability in the commercial rand and I am arguing that even with the financial rand in place in 1986, that did not stop massive volatility in the commercial rand.

The second point to make is that the world has changed dramatically since 1985 and globalisation now renders little economies like ours and our exchange rates extremely vulnerable to the whims of these very powerful investors who can decide on - virtually decide on the fate of an individual economy in a distant land by changing their decision about shifting a proportion of money held in this country, as opposed to that country.

MS QUNTA: So what is your solution, you - and you know I have not had your submission until five minutes before you started, but I noticed that you say that exchange control is - are not the solutions precisely because of what you are saying and you say there is certain futility in continuing with the remaining exchange control. What would you argue is a way of decreasing the volatility in the market which some people feel is necessary and normal, you know, but other people feel that it creates a poor environment itself, the volatility itself creates a poor environment for foreign direct investment. --- Madam Commissioner, I personally believe that if all remaining exchange controls were to be abolished the investors would change their perceptions about the fact that South Africans are too scared of investing in their own country and that is why they have got exchange controls in place. As a consequence you will have, together with the elimination of the NOFP, a much more symmetric two-way flow of trade in and out of the currency. It would not eliminate volatility in its entirety, but you would have less of the extreme - the extreme volatility that we saw in November and December. And under such circumstances you would have a situation where many South Africans who may have taken their money abroad, would suddenly wake up to the fact oh, it is nice to have a holiday in South Africa, things are so cheap there, let us go and buy property here and the money would start flowing back into the country and that would provide a much more stable environment. I do not believe that so long as the present dispensation of globalisation is around that any country will do itself a favour by trying to close itself off from that environment of globalisation, the benefits probably exceed the costs in terms of - in the longer term, but one of the problems is the enormous volatility and I believe that globalisation has sown the seeds of its own destruction precisely because of the manner in which these markets behave, but for South Africa on its own to try and work against this I think is going to be a losing battle. Rather join them completely by abandoning all remaining exchange controls.

Thanks, I have no further questions.

CHAIRPERSON: Any further questions?

MR POTGIETER: I will not dare it Mr Commissioner.

CHAIRPERSON: Thank you very much doctor. --- Thank you.

NO FURTHER QUESTIONS

PROCEEDINGS ADJOURN

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