



RENNIES REPORT

Rennies Ships Agency (Pty) Ltd

DEVELOPMENTS IN SOUTH AFRICA

AUGUST 2013

ECONOMICS

South Africa's growth trajectory is pedestrian according to the Governor of the SA Reserve Bank. The country has been warned about slow growth and rising inflation which leads to stagflation. Inflation is expected to be 6.3% in the third quarter of this year. Inflation in May was 5.6%.

South Africa had a R41.8bn trade deficit for the first quarter of this year compared to a R27.6bn deficit for the same period last year. The large quarterly deficit could influence the Reserve Bank in regard to the repo rate. The current account deficit was 5.8% of GDP in the first quarter of the year.

South African GDP growth in the first quarter of this year was only 0.9%. The country suffers from chronic official unemployment of 25% creating social problems including poverty and crime. The GDP growth in the previous quarter was only 2.1%. The GDP growth forecast for 2013 is now 2%. This is down from the previous forecast of 2.8%.

The International Monetary Fund has reported that each country in sub-Saharan Africa, barring South Africa and Equatorial Guinea, is expected to grow at above 4% in 2013. Equatorial Guinea has a forecast negative growth and South Africa has a growth forecast of 2.2%. The IMF expects the world economy to expand by 3.35% in 2013 and 4% in 2014.

RAIL

Botswana and Namibia have signed a \$11bn agreement for a transnational rail line. Tenders for the project are opened. The rail line will connect Botswana with the Port of Walvis Bay in Namibia and will open the way for Botswana to export coal.

Zambia Railways is assessing some 180 bids to rejuvenate the Zambian rail system which has deteriorated considerably.

Studies for a major expansion of general freight capacity at Richards Bay have been completed and earmarked under the R300bn Transnet plan. The plan is to raise the Port's capacity from 23M tons to 59M tons by 2040 and to position the Port as the premier Port for chrome, ferrochrome, fertilizers, magnetite, coal, forest products and liquid bulk. The infrastructure is expected to cost R15bn and should start in mid 2015.

Transnet has earmarked R5.8bn for railway development in the Waterberg region over the next seven years. A line will be constructed from Limpopo to the Botswana coal fields and another line to Thabazimbi and the line to Ermelo will be upgraded. Transnet is currently expanding its coal export channel which links the coal fields in the Waterberg to export markets. Capacity will be increased to 81M tons per year and thereafter to 97.5M tons per year. The 81M ton line is expected to be completed in 2014 / 2015. Transnet advised that their Waterberg rail infrastructure would link up with Botswana by 2020.

Transnet is selling refurbished locomotives, coaches and wagons to Mozambique and Malawi. Some 10 Class 33 locomotives and 21 passenger coaches were shipped recently to Mozambique. They will also be supplying 560 specialized wagons to Botswana and 95 wagons to Rio Tinto for the coal mining operations in Mozambique.

Tanzania has plans to invest \$350M to upgrade and modernize the rail network. The plan is to connect Dar es Salaam with countries such as Zambia, the DRC and Rwanda and Burundi.



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It is estimated that \$20bn is needed to revive Mozambique's railways and Ports. With coking coal markets oversupplied due to lower demand and higher domestic production in China, there will be delays in renovating the rail infrastructure. Investors are skeptical that by 2020, the country will be able to move 120M tons of coal a year, as promised by the Mozambique government.

PORTS

The Maputo Development Company (MPDC) and Grindrod plan to invest \$1.7bn over the next five years to upgrade Ports in Mozambique. The annual capacity of Maputo will be tripled to 50M tons by 2020 from the existing 15M tons.

Investment in 2013 and 2014 will be \$355M to boost capacity at the Matola terminal. The terminal will be handling 7.2M tons of coal exports next year. The terminal currently exports 6M tons.

There is the possibility of the development of a ship repair facility at Richards Bay, as Chery Holdings of China in partnership with TNPA, China Development Fund, China Development Bank, the IDC and the project promoters, Imbani Holdings are looking at setting up repair facilities at the Port.

The first discussions with stakeholders and local businesses have taken place with regard to the new Port at Durban. There are questions as to why a new R100bn Port is necessary, especially as the existing Port is under-utilised due to poor efficiencies and low productivity. The container turnover at Durban has decreased by 5% when compared to the previous year – some 2,712M TEU's in 2012 compared to 2,586M TEU's in 2011. It is interesting to note that the Port of Maputo, which is operated by private companies, has increased volumes from 2M tons when the private companies took over the concession some 10 years ago, to 15M tons in 2012. This growth has been achieved by improvements in productivity and efficiency rather than investments in improving infrastructure. It is feasible that the proposed new Port at Durban would not be necessary in the immediate future if productivity and efficiencies were improved and the Durban Container Terminal.

There is some confusion about the possible closure of Johannesburg's inland Port. A recently debated Customs Control Bill was debated in Parliament which will leave the City Deep container depot invalid. The Bill declares that all imported goods are to be cleared and released at the first Port of entry. This goes against Transnet's R1bn expansion of City Deep, increasing capacity from 280 000 TEU's to 400 000 TEU's by year 2016. The proposed Tambo Springs Inland Port and Logistics Gateway is expected to be the largest inland Port in Africa when completed. It is expected that the project will come on stream in 2017. It is located along the N3 about 21km from Heidelberg and will host warehousing, distribution, manufacturing and shipping. The City Deep facility will have reached capacity in 2017. The Tambo Springs facility is expected to handle 500 000 TEU's a year by 2018.

A conceptual study for a new coal terminal at Richards Bay has been completed. It envisages a facility which could be developed in stages, possibly by a private terminal operator, the first phase, starting at 14M tons per annum is planned for completion in 2020, and potentially increasing to 32M tons over a period of time. The terminal will be an open access facility and is tentatively priced at R15bn, with half the finance coming from the NPA and the balance from the terminal operator. Requests for expressions of interest could be issued in 2013.

China Merchants Holdings has signed a framework agreement with the Tanzanian Government to construct a new Port some 75km North of Dar es Salaam at Bagamoyo. The construction of a new Port, special economic zone, and the rail network will cost some \$10bn.

Saldanha Bay will be upgraded at a cost of R8.67bn over the next seven years to cater for oil and gas rig repairs and maintenance.

AUTOMOTIVE

There was a 20% jump in new vehicle sales in April and this year's sales in April are 16.4% higher than in April last year. This is in line with increased sales in the USA in April.



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The number of imported cars in 2012 was 318 000 units. It is expected that 335 000 units will be imported in 2013. There were 122 000 locally produced and sold cars in 2012 and this is expected to increase to 144 000 units in 2013. Overall production of vehicles in South Africa in 2013 is expected to reach 654 000 units, up from 539 424 units in 2012. Exports are expected to reach 361 300 units in 2013 – up from 277 893 units in 2012.

The top producers of vehicles in South Africa are Toyota, producing 149 250 units in 2012, of which 88 122 units were exported. Volkswagen produced 103 732 units last year of which 54 148 units were exported and Mercedes Benz produced 61 297 units of which 49 825 units were exported. The major export destination outside Africa was the US with 66 220 units followed by the UK at 41 111 units and Japan at 17 226 units.

GMSA advise that the new Isuzu will be exported to 46 countries in Africa.

ENERGY / POWER STATIONS

ELECTRICITY / POWER

Eskom has advised that R100bn is needed in investment in new coal mines to meet demand for electricity. Eskom expects a shortfall of as much as 40M tons from 2018. Eskom foresees a R225bn shortfall in its cash flow in the next five years as the company failed to secure the requested tariff increases.

Eskom has to return to service projects which involve the de-mothballing of three power stations namely, Camden, Grootvlei and Komati. The capacity of this project is 3 800 mega watts. Camden has been completed and 1 600 mega watts added to the grid. Grootvlei has also been added to the grid and Komati will be added shortly.

The Kusile power plant project is a 6-unit coal fired power plant with a 4 800 mega watt output. The value of the plant is R119bn and the first unit was planned to come on stream in late 2014 with the other units being commissioned in 8 to 12 month intervals – however it appears that there will be a six-month delay to commissioning.

The Medupi power station is a 6-unit plant with a 4 800 mega watt output. This is a dry cooled plant and full production capacity should be reached by 2017 at a cost of R99bn. The commissioning of units has been delayed by some 9 000 faulty welds and other delays by contractors.

The Department of Energy has an Independent Power Producer programme which has a potential capacity of 1 415 mega watts and includes 18 solar photovoltaic projects and 8 wind projects and two concentrating solar power projects. A further programme represents a further 1 043 mega watts from a variety of producers.

The DRC will be ready to build the 4 800 mega watts Inga 3 hydroelectric plant by 2015. Support from the African Development Bank and the World Bank and South Africa as a guaranteed purchaser of 2 500 mega watts will help find the \$8.5bn needed to start the project.

The Anglo American Khanyisa power project in Mpumalanga is investigating the feasibility of building a power generation unit which will use low quality discard coal. It is estimated that the discard dumps are 137M tons at South African Coal Estates and a further 4M tons of discard coal per year is added to the dumpsites. A 450 mega watt plant is being considered with Anglo using all the electricity production. The project will cost \$1bn.

Russia is keen to fully finance South Africa's planned nuclear power plant. A Russian company, Rosatom, is interested in bidding for the new nuclear power plants.

Malawi and Mozambique are planning to interconnect their power grids which will entail building a 800kV, 1000km power line from Tete to Phombeya in Malawi. The line will allow Malawi to import some 50 mega watts from Mozambique. Intra Energy Corporation plans to develop a 120 mega watt power station thermal power plant in Malawi. At present the country's demand for electricity is 300 mega watts and there is only 160 mega watts of effective working generation. The prediction is that Malawi will have a shortfall of 603 mega watts by 2015.

Tanzania has a deal with Sichuan Hongda Group of China for the development of a coal mine and the erection of a 600 mega watt power plant.



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Rwanda is planning to drill geothermal exploration wells. Three wells are planned which should sustain a 10 mega watt power plant. The World Bank estimates that Rwanda should be able to generate 15 000 mega watts from geothermal sources in the rift valley.

Zimbabwe has a deal with Sino Hydro Corporation of China to increase output at the Kariba power plant by 300 mega watts and an agreement was also signed with China Machinery Engineering Company to increase output at Hwange by 600 mega watts.

COAL

Resource Generation advised that it is looking for funding to construct the Boikarabelo mine in Limpopo province. The mine would be developed in two phases – the first phase would deliver 12M tons per year which equates to about 6M tons of saleable coal per year. The second phase is planned for 2018 which will see production increased to 20M tons per year. The mine has probable reserves of 745M tons.

Coal of Africa is disposing of its thermal coal mines to concentrate on coking coal projects. Tests have confirmed the presence of hard coking coal at the Makhado project in Limpopo. The Vele project in Limpopo should produce 0.5M tons of soft coking coal and about 1M tons of thermal coal.

Botswana's coal reserves are estimated at 200bn tons. The proposed rail line, some 1 500km from the Botswana coal fields to Walvis Bay, should cost \$11bn which is 70% of the GDP. Botswana plans to export 40M tons of coal in three to four years.

The provisional coal terminal at Beira is expected to handle 6M tons of coal in 2013. About 4.5M tons will come from Vale's Moatize mine and 1.5M tons from the Rio Tinto Benga mine.

Beacon Hill Resource is producing coal at its Minas Moatize mine in Mozambique. Some UK Sterling 5.9M is being invested in the mine to produce 2.2M tons of saleable coking coal per year. It is expected that plant capacity will be reached by the end of 2013. The ramp up of production will be in line with the rail capacity allocation on the Sena line.

The Benga coal project in Tete produced 460 000 metric tons in 2012. Phase 1 of the project will see the ramp up to a rate of 1.4M tons of coking coal and 800 000 metric tons of thermal coal per annum.

Junior coal mining entrants are becoming shareholders in Richards Bay Coal Terminal. The fifth phase development of the terminal has been given over to the junior operators which pay for equity through participation. The terminal has a capacity of 91M tons, with 19 shareholders and 7 are junior miners. Discussion about the sixth phase development is taking place and Transnet intends increasing the line capacity to 95M tons by 2018.

Ikwezi Mining has been granted a water use licence for its Ntendeka colliery outside Newcastle in KZN. This opens the way for the construction of a wash plant. The mine has an agreement with Transnet Freight Rail for a rail capacity of 1.5M tons per year to either Durban or Richards Bay.

South Africa needs some \$11bn in investment in new coal mines to meet the demand for electricity generation. Eskom estimates an annual shortfall of as much as 40M million tons from 2018.

MANGANESE

The Kalagadi Manganese project envisages the construction of a manganese mine and a 2.4M ton per year sinter plant. An additional component is the construction of a 320,000 metric ton Ferro Manganese smelter. The sinter plant is undergoing cold-commissioning. The mine is likely to be operational in early 2014.

Kaboko Mining of Zambia is considering the Mansa manganese project. The licence covers an area of 90 square kilometers. Initial studies indicate a high grade manganese resource. Further exploration will take place.



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MINERAL SANDS

Construction of the Tormin mineral sands mine some 400km north of Cape Town has started. The site has beach deposits of zircon, rutile and ilmenite. The life of the mine is only five years – however the company is confident that offshore resources will extend the life of the mine by a further five years. The mining right extends 12km along the beach. Non-magnetic material will be used to produce about 50 000 metric tons per year of mainly zircon and rutile which will be sent to China. The magnetic fraction is expected to amount to 100 000 metric tons per annum.

Mineral Commodities Limited has reapplied for prospecting rights for the Kwanyana block of the Xolobeni project.

World Titanium Resources (WTR) has commissioned a Port and Maritime consultancy to supervise site investigations for the Toliara Sands Project, north of Toliara in south west Madagascar. WTR proposes to mine 407 000 metric tons per year of ilmenite and 44 000 metric tons per year of zircon concentrate from the mine. The processed mineral sands will be road hauled to the Toliara jetty and stored in sheds prior to being loaded in bulk via ship-loader. Shipments are planned to start in early 2015.

IRON ORE

Analysts have advised that the largest iron ore producers are planning new mines worth \$250bn, threatening a price slump in iron ore.

The results of a drilling programme at Bushveld Mineral's Limpopo iron ore mine reveal a 38M ton resource at a depth of 30m. The ore is 53% iron content. Bushveld Minerals will start its Iron Ore project on a low capital base. The resource is more than 700M tons and the plan is to produce 5M tons of run of mine per year and this will be beneficiated to 2.2M tons of concentrate. Production should start in 2016. Bushveld also has a vanadium rich deposit which will be developed in the future.

Aquila Resources have a iron ore resource of 68M tons at 61.6% iron content at Thabazimbi. This could support a 4M ton per year export programme.

Assmang has an expansion project at the Khumani mine. The mine which is a 10M ton per year facility will be expanded to a 16M tons per year mine. Of the 6M tons, some 4M tons will be exported and 2M tons will be for the domestic market.

The Kolomela mine owned by Kumba will produce at its designed capacity of 9M tons during this year. Consideration is being given to expanding production by 6M tons. The mine has measured resources of 60M tons at 65% iron and inferred resources of 50M tons at 64.2% iron.

Kumba is looking at beneficiating low grade discard ore at Sishen which could produce some 5M tons per year of fine ore. There is a potential for first production in 2019. Kumba is considering the possibility of establishing an open pit mine to produce 3.4M tons a year at their Phoenix iron ore project at Limpopo within the Thabazimbi mining rights area. Potential production is forecast for 2019.

Diro Resources has contracted the supply of a 200 ton per hour dense-medium separation plant to beneficiate iron ore at its Kathu mine in the Northern Cape. It is expected that the 1M ton per year plant will be operational by the end of the year. The Kathu based mine has reserves of 21M tons and currently produces about 27 000 metric tons per month and they plan to increase production to 83 000 metric tons per month. Diro Resources acquired a million ton per year allocation permit from Transnet to transport iron ore to Saldanha Bay.

IMBS is developing a 50 000 metric ton per year pilot plant to beneficiate magnetite at Palabora Mining in Limpopo. The process uses thermal coal and produces cold-briquetted metallic iron. The magnetite resource at Palabora is 240M surface tons of 58% magnetite and the process self generates sufficient energy to run the operation. The vision is to produce 1M tons of metallic iron in South Africa.



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CHROME

Xstrata-Merafe is selling its Horizon chrome mine. The capacity of the mine is 40 000 metric tons per month. Xstrata-Merafe produced 1.18M tons of ferrochrome last year which was 8% down on the previous year. The company is using only 66% of its capacity.

FERRO ALLOYS

The Metalloys smelter is being expanded with the construction of a new 81MVA furnace with a capacity to produce 120 000 metric tons of high carbon Ferro Manganese per annum.

The commissioning of the Xstrata-Merafe / Lion Ferrochrome Complex expansion project is expected in the second half of 2013. The 600 000 metric ton per year pelletising and sintering plant was commissioned last year.

Jubilee Platinum has sold its ferroalloy smelting and power plant for \$14M.

NICKEL

Norilsk might suspend operations at Tati nickel mine in Botswana due to a sharp drop in nickel prices.

COPPER

The Spectakel plant near Springbok will produce in excess of 200 tons per month. The plant uses low power Cuperex technology. The process of turning concentrate into pure copper is new to the industry.

The Boseto copper project in Botswana has three main prospects and the feasibility study has shown that the resources can support a 3M ton per year copper / silver operation over a five-year life of mine. Yearly production is expected to be 35 000 metric tons of copper and 1M million ounces of silver.

The Tschudi project in Namibia has undertaken a feasibility study which shows mineral resources of 50M tons at 0.86% copper and a reserve of 22.7M tons at 0.95% copper. An open pit mine is planned producing 17M tons of ore per year with an expected production of 17 000 metric tons of copper per year. Mining should start in the third quarter of 2014.

GRAPHITE

A large deposit of graphite has been discovered in Northern Mozambique. The deposit is calculated at 117M tons of graphite which is larger than the reserves in the rest of the world. The Balama deposit is high grade and it is believed that that Balama could be the lowest cost producer of graphite in the world. Syrah Resources, the Australian miner has stated that it is confident that it will sell 220 000 metric tons during the first production year 2015. Exports will be through Pemba.

PIG IRON

Baobab Resources have completed a pre-feasibility study on the Tete pig iron and ferrovanadium project, which confirms an asset based on a 1M ton per year pig iron operation for 37 years. The resource is some 727M tons of ore. A definitive feasibility study is under way.

CEMENT

Sephaku Cement has two projects – the Aganang facility is 25kms west of Lichtenberg and a further facility at Dwaalboom producing 3 000 metric tons of clinker and cement per day. The first production from Aganang will be at the end of 2013 with the Dwaalboom facility coming on stream in 2016.

PPC plans to develop 1M tons per year cement plants in the DRC and Zimbabwe at a cost of \$200M each.



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OIL

PetroSA plans to build a 360 000 barrels per day crude oil refinery at Coega. The facility is designed to refine crude oil from the Atlantic, heavy sour oil. An electricity plant is planned as part of the project – this will generate some 800 mega watts. The project cost will be US\$11bn with indications to start up in 2020.

Uganda plans to build a 30 000 barrel per day refinery by 2016 / 2017 with plans to expand to 60 000 barrels per day in 2019. Uganda estimates its crude reserves at 3.5bn barrels.

GAS

The BG Group will present the Tanzanian government with a proposal for a liquefied natural gas terminal in the next few months. More gas reserves have been found off shore recently.

PetroSA and Sasol have an agreement to explore a block of land in the Orange River basin. The block is under-explored and is immediately south of the Ibhubesi gas field.

ONGC of India is purchasing a 10% stake in a Mozambique gas field for \$2.48bn. ONGC is facing diminishing supplies from oil and gas fields in India and is buying overseas assets. Demand for gas in India outstrips supply. India currently uses coal for 56% of its energy needs and oil accounts for 26%. India aims to grow the gas portion of its energy needs to 20% by 2020.

Recent discoveries in the Rovuma offshore gas field in Mozambique have boosted reserves to 150 trillion cubic feet and the field has the potential to become one of the world's largest LNG producing hubs by 2018.

A LPG terminal and handling facility is being constructed at Saldanha Bay. There will be storage for 8 000 tons and the terminal should be completed in December 2013.

Exploration on the shale gas in the Karoo will continue. It has been agreed that there needs to be a conclusive determination that the 485 trillion cubic feet of gas is technically recoverable and commercially viable. Shell has reiterated that they would give full disclosure of the chemicals used in fracking if the development phase goes ahead. Shell is waiting for an exploration licence and will only be able to start drilling once it has submitted its environmental, social and health impact assessment which will take an estimated two years.

An independent power producer is planning to supply gas from a deep stranded coal deposit in the Free State. The plan is to build a 50 mega watt combined-cycle gas turbine power plant. The gas will come from underground coal gasification.

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