KENYA: A MACROECONOMIC ANALYSIS

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Kenya's economic woes are deeply ingrained. One of the first priorities of the newly elected National Rainbow Coalition government is to "make a decisive break from the stop and go economic policy implementation of the 1990s and carry out economic reforms in a sequenced and timely manner, so as to achieve durable results in job creation and poverty reduction."[1] Among the most crucial challenges: an unemployment rate near 40 percent, an economy highly dependent on agriculture exports (24 percent of GDP in 2001)[2], high susceptibility to drought, high inflation rate[3], a negative GDP growth rate, and approximately half of its population living below the poverty line (2001 estimate).[4] Political considerations, such as institutional corruption and a newly elected president who signifies a change in the authoritarian regime structure will have important implications for Kenya's future economic and social conditions. Appendix A outlines Kenya's key economic indicators.

Poverty and the unequal distribution of wealth are major challenges for the Kenyan economy. Over half the population live on less than $1 per day. The wealthiest 10% of the population receive 47% of the income while the poorest 20% receive 3.4% of GDP. This means that the poorest 20% of the population receive just $260 each year, or $0.70 per day.[5] Economic forecasts report that Kenya needs growth in the 5-7 percent range in order to impact the country's poverty levels and increase per capita growth.[6] Further, the World Bank estimates that "given its population growth rate, Kenya needs an annual economic growth rate of at least 8 percent over 5 years to raise average incomes and provide jobs for an increasingly educated population."[7] GDP per capita annual growth rate was on average -.5% between 1990-2000. Inflation rates have also been high over the past decade. From 1990 through 2000, Kenya faced an average 15.1% annual change in consumer price index.

A key consideration for the Kenyan economy is how to address widespread corruption and an inconsistent rule of law. Kenya's history with the International Monetary Fund and the World Bank illustrates the extent to which this problem has impacted Kenya's growth potential. The IMF first suspended all loans to Kenya in 1997 after the 'Goldenberg scandal,' in which IMF development loans were used by a Kenyan businessman and Kenyan Central Bank officials to pay export compensation of around $300 million dollars of exported gold, even though Kenya is not a gold producer.[8] In 1999, the Kenyan government established an IMF mandated anti-corruption authority. Shortly thereafter, The IMF and World Bank reintroduced programs, only to cancel them again in 2001 after the Anti-Corruption Authority was declared unconstitutional. Thus, restoring donor confidence and stimulating local and foreign investor confidence is repeatedly mentioned as being key to Kenya's economic recovery.

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[1] The Kenyan Economy: An Overview, Government of Kenya information, December 2002.
[2] The World Bank, World Development Report.
[3] http://www.worldata.org/Y/2000/1%20VP/Economy/Prices/Inflation/CPI/vp_ok.htm
[4] CIA World factbook, http://www.cia.gov/cia/publications/factbook/geos/ke.html#Econ
[5] Chune, Noah, "Highlights of Current Labor Market Conditions in Kenya," global Policy Network, March 14, 2003, www.globalpolicynetwork.org/data/ kenya/kenya-analysis.pdf
[6] Redfern, Paul, "Kenya, Mood of optimism remains high," *African Business*, London: March 2003.
[7] The Kenyan Economy: An Overview, Government of Kenya information, December 2002.
[8] Vesely, Milan, "Kenya: Economic collapse Imminent," *African Business*, London: October 2001.

Domestically, the internal banking system currently suffers from a substantial level of non-performing loans (42 percent of total loans as of end-2001).[9] Additionally, steps to increase government revenue and efficiency are also taking place through privatization of many state assets. Privatization and restructuring efforts are also aimed at reducing the high public sector wage bill, which reached 32.3 percent of total public expenditure in August 2002.[10] However, privatizing state assets often exacerbates unemployment, and Kenya currently suffers from the third highest unemployment rate in the world.[11]

Kenya's unemployment rate has hovered close to 50% in the past 5 years. One factor contributing to this problem is Kenya's high population growth rate. From 1975 through 2000, Kenya had an average population growth of 3.3%. It is forecasted that Kenya's population will increase by 10 million from 2000 to 2015.[12] With half of its population living below the poverty line, Kenya's economy is unable to support its high population. Furthermore, around 44% of the current population is under the age of 15. This creates challenges with ensuring full employment in the future. Environmental disasters has also plagued Kenya large agriculture sector in the past two decades. Throughout the 1990s, droughts and floods were rampant. More recently, Kenya experienced major droughts in 2000 and 2001. High unemployment rates during this period coincide with a drop in agriculture output.   This paper will focus on addressing this persistent problem. Short run and long run policy recommendations are made as well as discussion of the major implications with implementing such policies in Kenya.

SHORT RUN POLICY RECOMMENDATION

Monetary Expansion

In order to tackle its high unemployment rate in the short run, Kenya has two policy options: fiscal expansion or monetary expansion policy. Kenya's IS-LM model (Figure 1, appendix B) is produced to look like one of a small open economy. A horizontal balance of payment (BP) line is drawn to show that its domestic interest rate equals the world interest rate. Since Kenya has a flexible exchange rate, a fiscal expansion will not have any effect on output in the short run. Therefore, monetary expansion policy should be used.

If the monetary authority increases the money supply, the LM curve will shift outwards as depicted in Figure 1. Downward pressure would be applied to the domestic interest rate at this point inducing capital outflow. As the current account deteriorates, the exchange rate depreciates. With a weaker currency, the price of domestic goods relative to foreign goods will become cheaper. This will cause an increase in net exports, stimulating job creation. As exports increase, the IS curve will shift out to point 3 to maintain balance of payment. At this final equilibrium point, Kenya's output would increase by a large amount.

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[9] The Kenyan Economy: An Overview, Government of Kenya information, December 2002.
[10] Ibid.
[11] CIA World factbook, http://www.cia.gov/cia/publications/factbook/index.html.
[12] UNDP. Human Development Indicators. 2002.

Implications of monetary expansion policy

A major implication of increasing the money supply in Kenya is the risk of exacerbating its already high inflation rate into the long run. From 1999 to 2000 Kenya faced an inflation rate of 4.9%.[13] In the short run, there is a tradeoff between inflation and unemployment characterized by the Phillips curve. In the long run inflation and unemployment are not related however, continuous growth of the money supply will increase inflation. Therefore monetary expansion must only be a short run policy. In order to increase employment in Kenya, the short run tradeoff between unemployment and inflation cannot be avoided.

One conceivable method for controlling inflation is based on the quantity theory of money. This theory states that prices can be kept constant if the rate of money growth equals the rate of GDP growth. This rule of thumb, however, is not possible for Kenya because real GDP growth rates have averaged close to zero over the past few years. This further reinforces the recognition that in the short run, there will be inflation and the monetary authority must be disciplined enough not to continue increasing the money supply into the long run.

VERY LONG RUN POLICY RECOMMENDATION

Solow Growth Model

To sustain full employment into the long run, Kenya needs to increase growth. Over the past five years, Kenya has experienced very low real GDP per capita growth. GDP per capita annual growth rate between 1990 and 2000 was -.5%. There are two competing models that help describe long run growth: the Solow growth model and the Endogenous Growth model.

The Solow Growth model (Figure 2) assumes a production function with constant returns to scale if capital and labor increases simultaneously by the same amount. The slope of the production function is the marginal product of capital, whereby an increase of capital alone results in diminishing marginal returns of capital. Output in this model is driven by investment and savings determines investment. Where the savings curve, sy, crosses the depreciation curve, δk, is the steady state level of capital stock available for investment and output.

Per capita income in 2001 was $271 and real GDP growth rate was 1% in 2001. Although we do not have actual numbers to compute we assume that given its low level of output, Kenya is below the Golden Rule level of capital. In order to move to a higher level of output, we recommend that Kenya put in place policies to raise its national savings rate and reach the Golden Rule level of capital. A higher savings rate shown by sy' will lead to higher investment. The higher investment raises the capital stock. As the capital-labor ratio grows, a new steady state k*' and higher output y' are achieved. A major implication of this policy recommendation is that when savings increases an initial fall in consumption must occur.

Another factor Kenya must consider is the impact of population growth. Population growth is a depreciating force when the addition of labor is not balanced with additional capital.

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[13] UNDP. Human Development Indicators. 2002.

This is shown by an upward rotation of the depreciation line and a resulting lower capital-labor ratio and a lower steady state. The Solow model predicts that higher population growth causes lower level of GDP per person.

Implications to increasing national savings

The most important tradeoff Kenya must consider carefully when pursuing this policy is reduction in consumption. Increasing public and private savings is a challenging task for most countries. Most recently, in 2001, Kenya faced a -14,705 million shillings government budget deficit. Kenya may face a bit of difficulty with cutting back spending in order to increase public savings however it was able to experience a budget surplus in 1996 and 2000. Another option for increasing government revenue is by increasing taxes. However, given the high level of corruption and low-income levels, raising revenue from higher taxes may not be feasible.

Policies to stimulate private savings may prove to be even more challenging. Developing successful policies to stimulate private savings, such as tax cuts or retirement benefits, have not proven to be overly successful. In addition to low-income levels, the high level of corruption may also help explain part of the reason behind Kenya's low household savings rate. In 2001, an average urban Kenyan pays about a third of their income in bribes a month.[14] The high level of corruption also hinders Kenya's ability to attract foreign direct investment as a way of making u for lost capital due to low national savings.

Endogenous Growth Model

A competing model to the Solow Growth Model is the Endogenous Growth Model. Unlike the Solow Growth Model, the Endogenous Growth Model assumes there are no decreasing returns to capital. This assumption holds if capital is defined broadly to include knowledge in addition to labor and physical forms of capital. The knowledge portion of the capital stock is the driver of income growth. This model also does not assume that there is a steady state point that an economy naturally gravitates to. In Figure 3, if a country is below this point, depreciation exceeds savings and capital stock will continue to diminish. If a country is above K*, there is nothing to erode capital stock and the economy will continue to grow.

If applying this model to Kenya, its persistent low GDP levels suggest that it is below K*. This paints an unfortunate picture for Kenya, since it indicates that the economy will continue to decline. In order to experience continually increasing economic growth, Kenya would need an abundance of K to help them get beyond K*. There are a few ways in which Kenya can receive a large increase in capital. Foreign aid in grant form would allow this to occur. Debt forgiveness would free up government spending that translates into public savings.

Implications of increasing capital stock

The main challenge with this policy option is with Kenya's ability to acquire enough capital to move its capital-labor stock beyond K*. Foreign aid has been on the decline worldwide and for Kenya. In 2000, official development assistance received was a mere 4.9

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[14] Transparency International. "Global Corruption Report 2003".

percent of GDP.[15] Debt forgiveness has the potential to lower Kenya's country credit rating. Finally, if possible an increase in capital would require the assurance by the government that it is channeled into public savings to be utilized for investment.

<center>CONCLUSION</center>

There are many problems hindering economic growth that the government needs to address in order to improve its economic standard and reduce its unemployment rate. In the short run, the government should consider increasing the money supply. This will lead to a higher growth thereby reducing unemployment. The main downfall is that it will increase in inflation, another one of Kenya's economic problems.

In the longer run, Kenya will need to implement policies to deal with its high level of inflation. Currently, the Central Bank of Kenya (CBK) is considering shifting to inflation targeting. If that happens, the CBK would be forced to state their desired level of inflation, and the CBK would strive to maintain that rate. Ultimately, this should lead to more stable price levels as prices are frequently changing.[16]

Additionally, Kenya needs to increase its national savings rate in the very long run. Increased savings will lead to increased investment, and thus overall growth. Although this policy will be in Kenya's very long run best interest, we recognize that it will not be easy to achieve due to its already low consumption rate. However, this plan could prove futile if the government does not put forth measures to tackle corruption, restore investor confidence and improve rule of law that will help encourage foreign direct investment.

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[15] UNDP, Human Development Indicators, 2002.
[16] "CBK plans to shift to inflation targeting." Financial Standard. February 4-10, 2003.

APPENDIX A: KEY ECONOMIC INDICATORS[17]

	1998	1999	2000	2001
GDP (US$)	11,444,030,000	10,527,140,000	10,356,500,000	10,419,030,000
GDP per capita	398	362	***	***
GDP per capita growth rate	-1 %	-1 %	***	***
Aid per capita	17	11	12	***
Inflation rate	9 %	6 %	7 %	3 %
Unemployment	50 %	***	***	40 %
Money supply *(millions of Kenyan shillings)*	94,092	109,506	118,968	126,332
Government deficit *(millions of Kenyan shillings)*	-5,304	-5,189	7,196	-14,705
Gross domestic savings as share of GDP	7 %	7 %		
Exchange rates	87.165	100.098	101.674	98.779
Net Exports *(% of GDP)*		-18.6 %	-13.1 %	-18.1 %
Total debt service *(% of exports of goods and services)*	23 %	26 %	17 %	***
Population growth	2 %	2 %	2 %	2 %

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[17] Sources for graph: The World Bank, World Development Report; World Bank Development Indicators from http://devdata.worldbank.org/data-query/; the CIA World Fact book, http://www.cia.gov/cia/publications/factbook/geos/ke.html#Econ

Figure 1. Monetary policy expansion in the short run

LM0

LM1

1   3

$r = r^*$ BOP

2

IS1

IS0

Y0   **Y1**
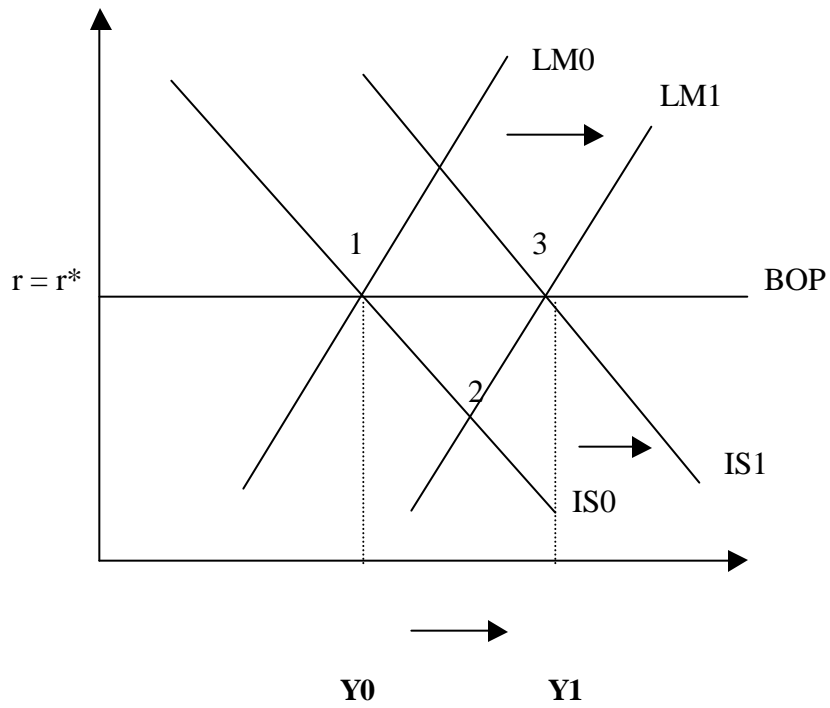
Figure 2. Increasing growth through the Solow growth model in the long run

y

δk

y'
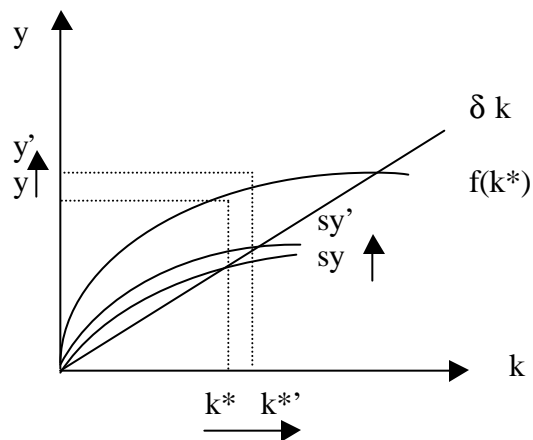y   f(k*)

sy'
sy

k

k*   k*'

Figure 3. Increasing growth through the endogenous growth model in the very long run