INTERNATIONAL MONETARY FUND

IMF Country Report No. 13/341

SURINAME

2013 ARTICLE IV CONSULTATION

December 2013

SELECTED ISSUES

This Selected Issues Paper for Suriname was prepared by a staff team of the International Monetary Fund as background documentation for the periodic consultation with the member country. It is based on the information available at the time it was completed on September 5, 2013. The views expressed in this document are those of the staff team and do not necessarily reflect the views of the government of Suriname or the Executive Board of the IMF.

The policy of publication of staff reports and other documents by the IMF allows for the deletion of market-sensitive information.

Copies of this report are available to the public from

International Monetary Fund • Publication Services
P.O. Box 92780 • Washington, D.C. 20090
Telephone: (202) 623-7430 • Fax: (202) 623-7201
E-mail: publications@imf.org Internet: http://www.imf.org

International Monetary Fund
Washington, D.C.

© 2013 International Monetary Fund

INTERNATIONAL MONETARY FUND

SURINAME

SELECTED ISSUES

September 5, 2013

Approved By
Western Hemisphere Department

Prepared by Qiaoe Chen, Daniel Kanda, Mario Mansilla, and Jochen Schmittmann (all WHD)

CONTENTS

TABLES

FIGURE

FIGURE

CONSTRUCTING A HIGH-FREQUENCY ECONOMIC GROWTH INDICATOR FOR SURINAME[1]

1. An assessment of the current state of the business cycle is of crucial importance to policy makers. However, most economic data for Suriname are available only with a substantial time lag and on a low frequency basis, impeding such analyses. For example, GDP is only available on an annual basis, and with a long lag. This note presents a simple econometric model that closely approximates GDP in recent years. We use our model estimates to construct a monthly indicator of economic activity for Suriname. The indicator provides information about the pace of economic activity close to real time, typically with a one to two month lag.

2. For Suriname the construction of a timely indicator for economic activity is particularly challenging. Data inputs for the indicator need to be available on a monthly basis with a sufficiently long time series, released on a timely basis, and have a close relation to GDP. These requirements limit potential model inputs to global economic and financial indicators, credit data, commodity prices and production quantities, and inflation. More direct proxies for economic activity such as industrial production and activity surveys are not available. In addition, structural breaks in Suriname's macroeconomic development, for example, related to the start of large-scale gold production around 2004, episodes of very high inflation in the mid-1990s and around the turn of the millennium, and internal armed conflict between 1986 and 1992, limit the analysis to a relatively short time series.[2]

3. A parsimonious model including credit and a proxy for global conditions describes real GDP growth since 2005 well. The model explains about 83 percent of the variation in real GDP growth (adjusted R-squared). The explanatory variables are significant at conventional levels and have the expected sign. The model specification is:

$$(1) \qquad \Delta rGDP_t = \alpha + \beta * \Delta credit_t + \gamma * VIX_t$$

where $\Delta rGDP_t$ is annual real GDP growth, $\Delta credit_t$ is the impulse from credit growth over the year, and VIX_t is the annual average level of the VIX.[3] Credit is positively related to economic growth, capturing both banks' confidence in the economy (supply of credit) and the need for financing of investment and consumption (demand for credit).

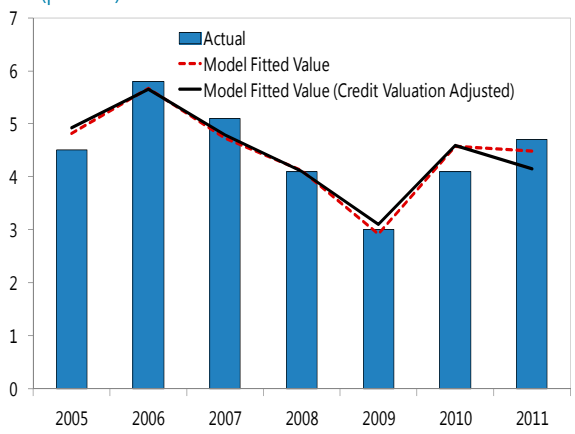
[1] Prepared by Jochen Schmittmann.

[2] More complex econometric methods to estimate economic activity indicators cannot be applied for Suriname due to the short time series and other data constraints. See Matheson (2011, IMF WP/11/43) for a discussion of growth indicators in advanced and emerging markets.

[3] The Chicago Board Options Exchange Market Volatility Index (VIX) is a measure of the volatility implied in options on the S&P 500 stock index and widely used as a proxy for global financial market conditions and uncertainty.

4. We measure credit impulse based on the change in the flow of credit and not the stock of credit. As Biggs et al. (2010) show, GDP (a flow variable) will be a function of new borrowing, or the flow of credit, to the extent that spending is credit financed.[4] By scaling the flow of credit with nominal GDP we capture the size of the credit impulse relative to the size of the economy. For a particular month t, the credit impulse is calculated as the difference between the change in credit stock between month t and month t-12 and the change in credit stock between month t-12 and month t-24. This difference is scaled by nominal GDP over the period t to t-12. The model indicates that a one standard deviation increase of the credit impulse is associated with a 0.45 percent increase in real growth.

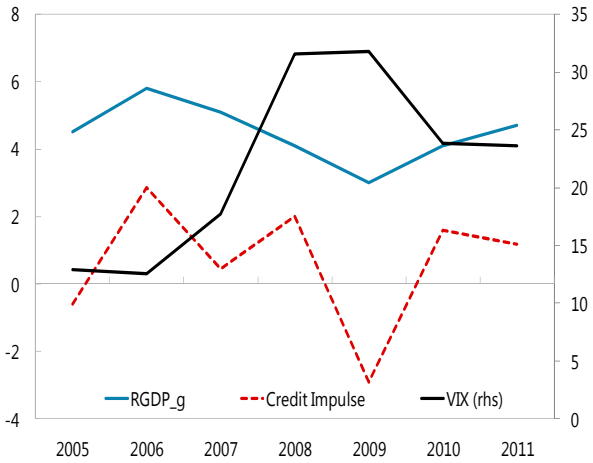
Real GDP Growth – Actual and Fitted Values
(percent)



Sources: IMF staff estimates, and national authorities.

5. The VIX represents financial market expectations of global financial and economic conditions. Global conditions affect a small, open economy through various channels including trade, commodity prices, financial linkages, and sentiment. The model suggests that a one standard deviation increase in the VIX (a higher VIX means higher risks) is associated with a 0.57 percent decrease in real growth.

Real GDP Growth, Credit Impulse, and VIX



Sources: IMF staff estimates, national authorities, and Bloomberg.

6. Plots of real GDP growth, the credit impulse and the VIX indicate the following. Strong growth in 2006 coincides with a rapid expansion of credit and benign global conditions (low VIX). Growth decelerates in the following years and hits a low of 3 percent in 2009 as global conditions worsen and credit growth slows. In 2010 and 2011 growth recovers along with credit and an improvement in external conditions.

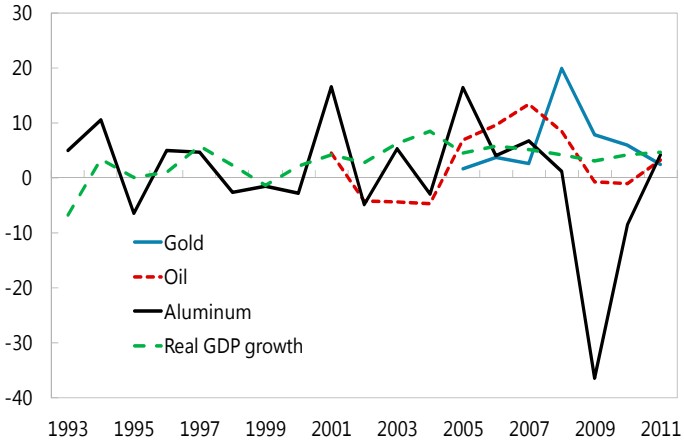
7. With a substantial portion of credit in foreign currency, the devaluation of the Suriname Dollar (SRD) in January 2011 affected the stock of credit in SRD terms. At the time of

[4] For a detailed discussion of the credit impulse variable see "Credit and Economic Recovery: Demystifying Phoenix Miracles" by Biggs, Mayer, and Pick (2010) available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1595980.

the devaluation the foreign currency portion of credit (about 35%) increased in SRD terms, falsely suggesting an expansion of credit. We address this issue in two ways. First, our baseline model uses the credit impulse over 12-month rolling windows, so that the one-time revaluation effect is spread out over time. Second, we calculate a devaluation adjusted credit series. However, without information about the maturity of loans at the time of the devaluation an exact adjustment is not possible. Thus, the adjustment potentially biases the growth of credit downward. The first chart above presents the model estimates with adjusted and unadjusted credit. In both cases the model underpredicts 2011 growth, but the prediction error is larger for the devaluation adjusted model. In 2011 the model probably underpredicts because it does not capture the boost to exports from the REER depreciation.

8. Surprisingly, the correlation between GDP growth and mining output (and prices) in Suriname is low. The direct share of mining in GDP is only 6 percent. However, the indirect impact on the economy through processing (the share of mining related manufacturing is not available), secondary spending, and fiscal revenues is likely to be much higher. That said, bauxite and oil production are significantly positively correlated with growth, as expected. Gold, Suriname's dominant export commodity, does not have a significant relation with GDP growth. As the global financial crisis intensified in 2008 and 2009, Suriname's gold production expanded rapidly and gold prices reached record highs. However, the positive impact of gold on the economy was likely offset by an indirect negative effect related to the negative correlation of gold prices with global financial conditions (the safe haven status of gold).

Real GDP Growth and Mining Output Growth
(percent)



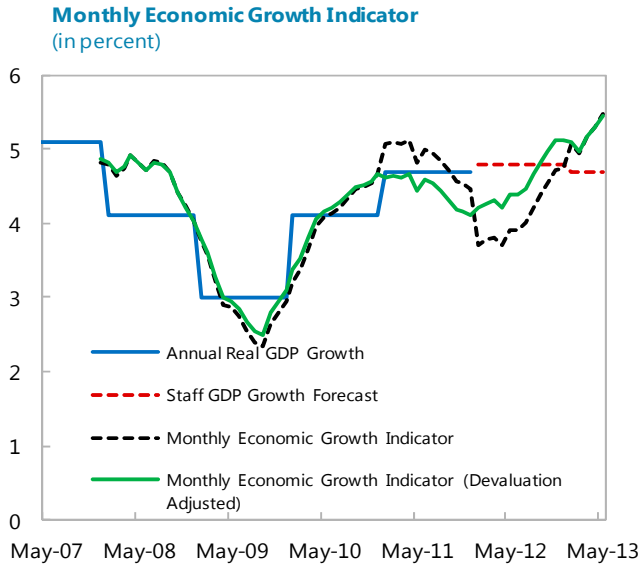
Sources: IMF staff estimates, and national authorities.

9. To obtain the monthly economic activity indicator we apply the coefficients β and γ from equation (1) to monthly credit and VIX data. Both variables are used on a 12-month rolling basis, which allows for time lags for movements in credit and the VIX to influence activity. For example, the VIX is based on expectations and hence forward looking. It would take time for developments captured by the VIX to impact the Surinamese real economy.

10. The economic growth indicator suggests real growth between 4.7 percent (no devaluation adjustment to credit) and 5.1 percent (devaluation adjustment) in 2012. The prediction with unadjusted credit data is lower due to a base effect when comparing 2012 credit with 2011 credit, as the latter is inflated in SRD terms by the devaluation. The economic growth indicator suggests a pick-up in growth in the second half of 2012, reflecting a normalization of global conditions following European policy action to address the Euro Area crisis and stronger

credit growth in Suriname. Credit growth in the second half of 2012 was particularly strong in the trade, transport, and housing construction sectors. In addition, government borrowing has increased.

11. Estimates for the first five months of 2013 suggest growth around 5 percent. In February the annualized monthly economic growth indicator decelerated to below 5 percent as month-on-month credit growth turned negative for the first time since 2009. This more than offset a slight improvement in external conditions as the VIX continued to decline. The decline in credit in February was mainly due to the manufacturing, trade, and transport sectors. However, in March and April credit growth picked up strongly accelerating to 20 percent yoy in April. The main driver of credit growth was the category "other" which includes government borrowing. Strong credit growth coupled with accommodative external conditions (low VIX) caused the economic growth indicator to accelerate to 5.5 percent in May.



Source: National authorities, IMF staff estimation

12. While economic and statistical models provide useful information about the state of the business cycle, judgment based on an in-depth knowledge of the economy is perhaps most important. The economic process is more complex than any model can capture. Our simple approach focuses on two aspects, credit and external conditions, but ignores for example foreign direct investment projects, or remittances flows. As with any empirical model, the validity of predictions going forward depends on the stability of estimated relationships. The economic activity indicator can be further refined as longer time series and new data on activity indicators such as housing construction starts, retail sales, and electricity usage become available.

MONETARY AND FINANCIAL SYSTEM OF SURINAME[1]

A. Financial Institutions and Infrastructure

1. Commercial banks play a dominant role in the financial system, holding about 77 percent of total financial sector assets. Nine commercial banks currently operate in Suriname, including one wholly foreign owned commercial bank, four private domestically owned banks (government has 10 percent shares in one of them) and four state-owned banks. The three fully state-owned small commercial banks are non profit-driven institutions with social development aims. The banking system is also highly concentrated as the three largest banks (De Surinaamsche Bank, RBC Royal Bank Suriname, and Hakrinbank) account for 78 percent of the total banking assets.

Structure of Commercial Banking System: end-2012 (in percent)

	State ownership	Foreign ownership	Private ownership
Large banks			
De Surinaamsche Bank	10	0	90
RBC Royal Bank Suriname	0	100	0
Hakrinbank	51	0	49
Small banks			
Surinaamse Volkscredietbank	100	0	0
Lanbouwbank	100	0	0
Surinaamse Postspaarbank	100	0	0
Finabank	0	0	100
Surichange Bank	0	0	100
Cooperatieve Spaar-en Kredietbank Godo G.A	0	0	100

Source: Central Bank of Suriname

2. Nonbank financial institutions comprise mainly pension funds and insurance companies. There are 34 pension funds (29 are operational, 4 are under judicial dissolution, and 2 have not responded to the central bank) and 12 insurance companies, which account for 14 percent and 8.7 percent of total financial assets respectively. Other financial institutions hold around 0.3 percent of financial sector assets, including 5 investment and finance companies (3 are not operational), 28 savings and credit unions (2 are in the process of dissolution), one savings fund, the National Development Bank, 5 provident funds, 25 foreign exchange bureaus, and 6 money transfer houses.

[1] Prepared by Qiaoe Chen.

3. The largest insurance institution, Assuria, plays an important role in Suriname's financial market. Assuria, as a group company, holds 7 percent of the shares of Hakrinbank and 49 percent of the shares of De Surinammsche Bank. It also holds an investment company. Assuria was one of the founding members of the stock exchange in Suriname in 1991 and its Managing Director is the current Chairman of the stock exchange as well. Assuria established the first overseas insurance company in Guyana in 1998 and bought Gulf Insurance Ltd in Trinidad and Tobago recently.

4. Central Bank of Suriname (CBvS) is the monetary authority and sole financial supervisor in Suriname. CBvS was established in 1957, in line with the *Bank Act*, which took effect in 1956 and has been amended seven times with the latest in December 2010. Four other laws govern Suriname's financial sector: (1) *the Banking and Credit System Supervision Act 2011,* governing depository institutions[2] (banks, investment companies, finance companies, and credit unions); (2) *the Pension and Provident Fund Act 2005,* (3) *the Banking and Credit System Supervision Act 1968* (for insurance companies, and currently no independent insurance Act), and (4) *The Foreign Exchange Houses and Money Transfer Companies Act 2012*.

5. The financial sector infrastructure requires further development. Suriname has no T-bill market, and the ministry of finance issues bonds through bilateral contact with commercial banks. No electronic inter-bank payment system operates and all clearing and settlement of inter-bank payments (including cheques) is carried out semi-manually. Moreover, the inter-bank market is not active with only sporadic trading activities and small transaction volumes. The stock exchange is a self-regulated organization with 12 listed companies currently. Given the limited capacity, there have been no IPOs and the turnover in the market is very low. Although investors are reportedly keen to invest in the capital market, transactions take place only twice monthly and most of shareholders don't sell their shares except in rare cases.

B. Monetary Policy Framework and Financial Supervision

6. According to Article 9 of the *Bank Act*, the key objective of the central bank is "to promote the stability of the monetary unit of Suriname". Therefore, in practice, the exchange rate is the nominal anchor of Suriname monetary policy. In pursuit of such a goal, Article 10 (a) requires the Government to "establish regulations on exchange rate arrangement applicable to Suriname Dollar". Article 10 (f) grants the central bank authority to regulate exchange rate and "this may imply setting maximum and minimum rates".

7. Suriname has multiple currency practices (MCPs). CBvS set up the maximum and minimum rates of Suriname dollar (SRD) at 3.25–3.35 SRD per US dollar after the 20 percent devaluation in January 2011. The official rates are the exchange rates for government transactions,

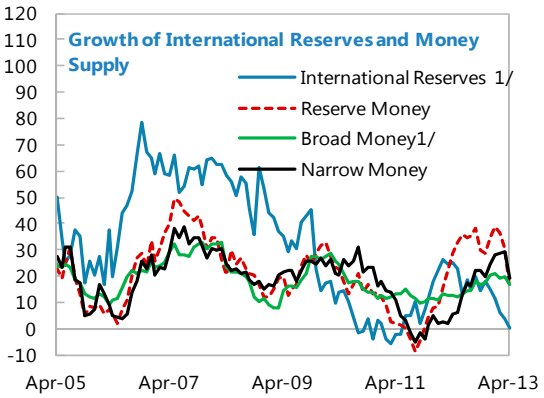
[2] Under Suriname banking law, a "bank" is a financial institution that can maintain checking accounts. Nonbank financial institutions could take deposits and function as a bank, but are not legally banks.

i.e. central bank will buy U.S. dollars at 3.25 SRD per U.S. dollar from the major state-owned companies who pay taxes and royalties in U.S. dollar and sell U.S. dollar to government for purchasing designated goods and services including medical products and baby milk powder at 3.35 SRD per US dollar. Commercial banks and the foreign exchange bureaus (cambio) are allowed to quote their bid and ask rates within the official band. In addition, cambios are also required to surrender 15 percent of their purchased foreign exchange to the central bank. The MCPs arise from (i) the existing spread of more than 2 percent between the buying and the selling rates in the official market for the government's foreign exchange transactions; and (ii) the potential spread of more than 2 percent between the official rates for government transactions and those in the commercial markets. While the exchange rate is akin to a peg, it also has features of an exchange rate band.

8. The central bank supplies foreign exchange in the market periodically. Most importers in Suriname buy foreign exchange from commercial banks who then request supply of foreign exchange from the central bank with authenticated import verification. After approval, central bank transfers foreign exchange to commercial banks who then pay foreign suppliers directly on behalf of their clients. However, the central bank does not supply foreign exchange to cambios. They buy foreign exchange (mostly Euros) from foreign tourists and remittances from Surinamese abroad.

9. With regard to domestic monetary policy, CBvS only has reserve requirement ratio (RRR) and foreign exchange intervention in its monetary policy toolkit at present. RRR on domestic and foreign currency deposits was introduced in 2001 and 2003 respectively. The RRR for domestic currency deposits is 25 percent (but effective RRR is at about 17 percent as up to 7 percent of reserved deposits could be used for financing low-interest mortgages) and 45 percent for foreign currency deposits at present. The RRR for domestic currency was kept unchanged since 2006, while the RRR for foreign currency deposit was raised from 17.5 percent in 2003 to 33.3 percent in 2005, to 40 percent in 2011 and to 45 percent in January 2013. In addition, the required reserves on foreign currency are not required to be placed in the central bank, so commercial banks deposit foreign exchange reserves in an overseas corresponding bank's account and earn interest, but those in domestic currency are unremunerated.

10. Unsterilized foreign exchange intervention has monetary implications. Central bank's buying and selling foreign exchange without tools for sterilization results in increasing or decreasing of reserve money and the money supply. It has a pro-cyclical effect on domestic economy by increasing liquidity in the financial system when accumulating foreign exchange reserves, stimulating bank lending and driving up aggregate demand, potentially increasing vulnerabilities.



1/ Data adjusted for devaluation in January 2011.
Source: Central Bank of Suriname

11. CBvS is developing a Treasury bill auction system to pave the way for adopting indirect monetary policy tools. In line with Fund technical assistance, the central bank is preparing to introduce regular Treasury bill auctions in early 2014 as

the main vehicle for the development of an interbank money market and a government securities market. Afterwards, the central bank plans to use T-bills to conduct open market operations to adjust financial market liquidity. It will help the central bank to manage financial market liquidity and sterilize foreign exchange market intervention.

12. CBvS is strengthening banking regulation as well. With the passage of the new Supervision Act, the central bank is about to strengthen prudential regulations through increasing capital requirement, NPL provisions, tightening limits on large exposure and insider-trading before the end of 2013. The central bank is also preparing to strengthen bank's corporate governance, introduce risk-based regulation and intensify on-site examination.

13. Regulation on nonbank financial institution is in the early development stage. Due to the capacity constraints, supervision over nonbank financial institutions is light. Communication between central bank and nonbank financial institutions is infrequent and no regular data are sent to the central bank. Currently, the central bank has drafted the Insurance Bill and it is expected to be enacted by the end of 2013. The central bank is also making efforts to strengthen financial infrastructure. For example, currently a credit bureau and a deposit insurance scheme are being contemplated.

14. Progress in improving the AML/CFT regime is ongoing. The most recent follow-up report to the 2009 assessment indicates improvements, including recent legislation covering the identification requirements for service providers, and the reporting of unusual transactions. However, some gaps remain, including in areas related to the risks of smuggling of precious minerals and combating corruption. The authorities are considering the next steps forward and are also improving AML/CFT supervision of financial institutions to strengthen the implementation of the requirements already in place.

C. Financial Soundness Analysis

15. Commercial banks are sound and profitable in general. The capital adequacy ratio for the banking system (12.3 percent) is above the regulatory 8 percent minimum but lower than the regional average (20 percent). In line with the new Supervision Act, the central bank proposes to increase the minimum capital adequacy ratio to 10 percent with likely higher requirement for large banks. The return on equity (ROE) was 29.1 percent as of March 2013, higher than regional average. But return on asset (ROA) was 2.1 percent in March 2013, which is lower than some countries in the region. Thus, the higher-than-regional-average ROE is partly due to lower capital than other countries in the region. Three small state-owned banks are under consideration by the government to be restructured. The government also plans to reduce its holding in the large majority-state-owned bank and restructure one small nonbank financial institution.

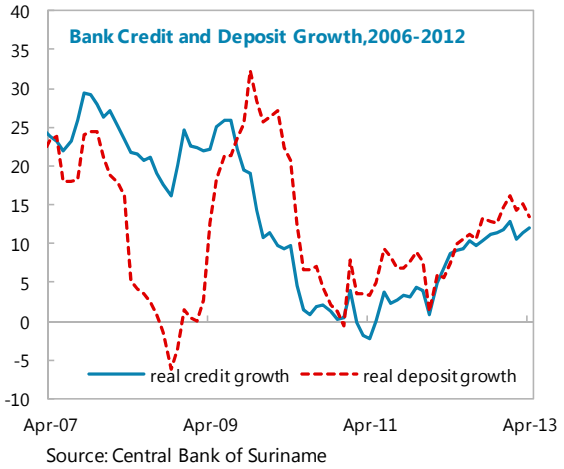
16. Asset quality is comparatively higher than the regional average, though the NPL ratios remain high. The NPL ratio for the banking system increased slightly from 6.2 percent in December 2012 to 7.1 percent in March 2013. The proposed new guideline aims to increase provisions for NPLs by forbidding netting-out of collateral value in calculating the NPL ratio. To improve asset

quality, the supervisory authority also plans to tighten limits on large credit exposure and insider-trading.

17. Liquidity in the banking system is substantial. Liquid assets account for 30 percent of total assets, above the regional average. Besides, commercial banks' excess reserves almost tripled at end 2012. In April 2013, excess reserve declined below the level in December 2012, but it remains high.

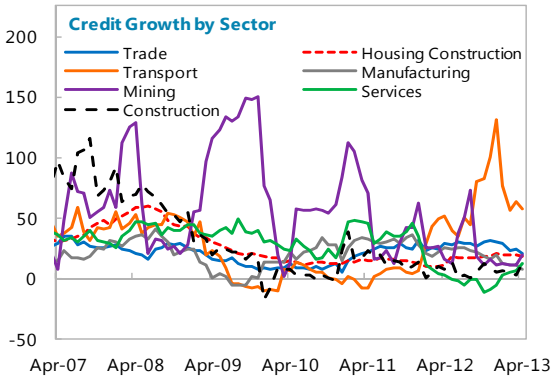
D. Recent Developments in the Credit Market

18. Real credit growth has picked up gradually since 2011. Real credit growth dropped sharply from the peak of 23.7 percent in August 2009 to -2.3 percent in April 2011 along with the deteriorating market confidence due to global financial crisis and the devaluation of Suriname dollar in January 2011.[3] Between 2004 and 2011, real credit grew by 15.8 percent on average, which is higher than Latin America (9 percent) and some neighboring countries in the same period. The rapid credit growth has been accompanied by strong deposit growth. During 2006–2012, the ratio of deposit to GDP rose from 23 percent to 41 percent of GDP. The rapid credit growth could reflect deepening of the shallow credit market. From 2004 through 2012, the credit-to-GDP increased by 11 percentage points from 15 percent to 26 percent, which is still relatively low.



Source: Central Bank of Suriname

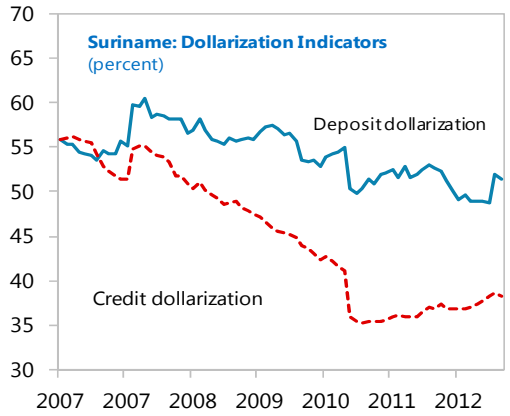
19. On sectoral basis, during 2006 to 2012, trade and housing construction sectors are the largest two in terms of credit allocation, followed by manufacturing and services sectors. On average, credit to trade and housing construction sectors account for 25 percent and 15 percent of total credit respectively. The share of credit to the agriculture sector is 4 percent. In terms of credit growth, mining and transport, and manufacturing (including processing of mining products) sectors have substantially faster growth than other sectors, but from a low base.



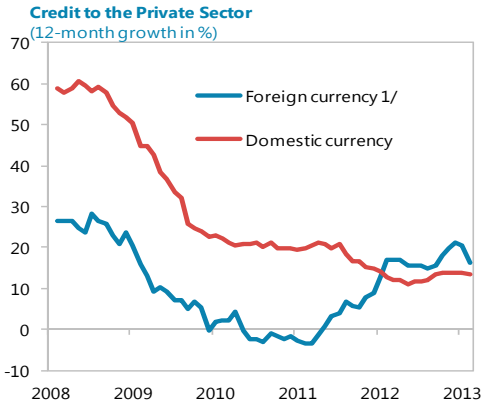
Source: Central Bank of Suriname

[3] If considering devaluation effect, real credit growth particularly in 2011 could be lower than current calculation due to the one-off increase of foreign currency loans after devaluation.

20. Credit growth in foreign currency loan accelerated after the devaluation in 2011, and surpassed credit growth in domestic currency in 2012. The faster growth of foreign currency loan is partly a recovery from the sharp decline from declining of market confidence since the onset of the global financial crisis and also the expectation of Suriname dollar devaluation in 2011. However, foreign currency credit growth is still below historical average at present.



Source: Central Bank of Suriname, IMF staff calculation



1/ Data adjusted for the devaluation in 2011
Source: Central Bank of Suriname, IMF staff calculation.

21. Although strong credit growth from 2012 looks benign in general, potential vulnerabilities especially related to the housing sector warrant vigilance. Credit growth in housing construction grew by 28 percent on average in the past 6 years. Given the shallow financial market in Suriname, insurance companies and pension funds, as well as banks, invested heavily in mortgages. For example, preliminary data indicate that out of a total of 1.3 billion Suriname dollars in pension fund assets in 2012, around 70 percent was invested in mortgages. High concentration of financial institutions in housing sector and the interconnection among major players might create contagion risks if the housing market experiences a sharp correction. Given the significant economic outlook exposure to gold prices and limited fiscal buffers, the housing market could come under pressure in an adverse scenario. However, commercial banks typically have a conservative approach to lending, and generally maintain loan-to-value ratios up to 60 percent, mitigating risks.

Suriname: Financial System Structure and Financial Soundness Indicators 1/

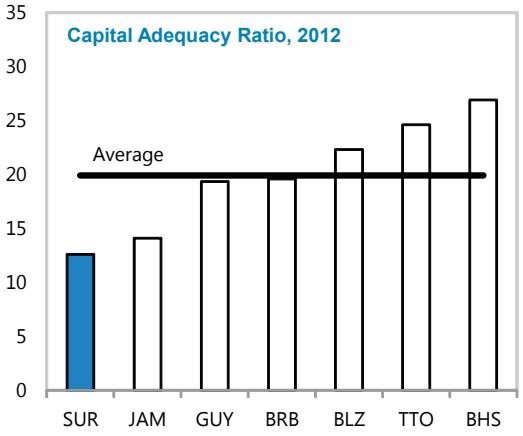
	2009	2010	2011	2012	Mar-13
Number 2/					
Banks	8	9	9	9	9
Large banks	3	3	3	3	3
Small banks	5	6	6	6	6
Reporting non-bank financial institutions					
Pension funds	26	21	17	7	...
Insurance companies	11	9	9	7	...
Credit unions and cooperatives	5	5	5	4	...
			(In percent of total)		
Assets	100.0	100.0	100.0	100.0	100.0
Banks	74.9	76.9	77.2	...	...
Large banks	61.8	79.1	78.4	...	...
Small banks	13.1	20.9	21.6	...	...
Pension funds	15	15.1	13.9	...	...
Insurance companies	7.7	7.8	8.7	...	...
Credit unions and cooperatives	2.4	0.3	0.3	...	...
Deposits					
Banks	100.0	100.0	100.0	100.0	100.0
Large banks	82.5	80.0	79.1	78.3	77.4
Small banks	17.5	20.0	20.9	21.7	22.6
Capital adequacy					
Regulatory capital to risk-weighted assets (*)	10.8	12.2	12.1	12.6	12.3
Regulatory Tier I capital to risk-weighted assets (*)	9.5	10.8	10.9	11.5	11.2
Capital (net worth) to assets	5.6	6.2	6.3	6.3	6.2
Asset composition					
Sectoral distribution of loans to total loans (*)					
Agriculture	4.3	4.3	3.7	3.2	3.1
Manufacturing	7.8	7.7	8.3	8.5	8.1
Commerce	26.2	23.9	26.3	29.8	3.0
Housing construction	18.2	17.9	16.8	17.3	1.7
Other	43.5	46.2	44.9	41.1	41.9
Asset quality					
Foreign currency loans to total loans	41.2	37.1	40.7	42.2	41.6
NPLs to gross loans (*)	7.9	7.9	8.0	6.2	7.1
NPLs net of provisions to capital (*)	50.1	44.6	44.0	30.6	37.0
Large exposures to capital (*)	105.1	98.1	106.8	83	90.3
Earnings and profitability					
ROA (*)	2.5	2.2	1.9	1.9	2.1
ROE (*)	45.3	36.9	27.2	24.8	29.1
Interest margin to gross income (*)	69.4	73.3	71.7	74.6	69.6
Noninterest expenses to gross income (*)	57.4	58.3	57.9	58.6	55.3
Personnel expenses to noninterest expenses	59.2	59.9	58.9	62.2	59
Trading and fee income to total income	31.9	28.8	30.7	26.6	30.9
Spread between reference loan and deposit rates	8.0	8.2	8.0	8.0	8.0
Liquidity					
Liquid assets to total assets (*)	29.8	29.2	26.4	28.4	29.7
Liquid assets to total short-term liabilities (*)	52.9	54.4	49.2	54.6	59.1
FX liabilities to total liabilities	50.3	47.0	51.5	48.8	47.1
Net position in foreign currency to capital 3/	28.7	19.2	...	...	...

Source: Central Bank of Suriname.

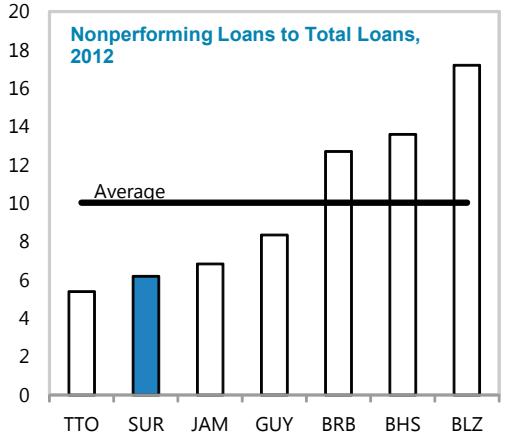
(*) Included in the "core set" of financial soundness indicators identified by the IMF's Executive Board.
1/ Indicators refer to banks, which comprise over 70 percent of financial system assets at end-2008.
2/ The three largest banks hold more than 57 percent of total financial system assets.
3/ Net position in foreign currency (total assets minus total liabilities) as a proportion of banks' shares and other equity.

Financial Soundness Indicators

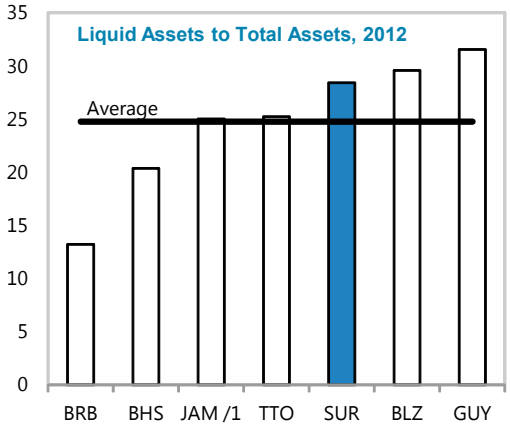
Capital is lower than the regional average, but above regulatory limits.



NPLs are relatively high but below the regional average.

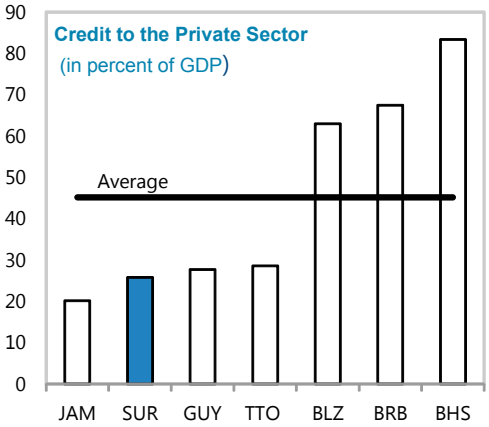


The banking system is liquid...

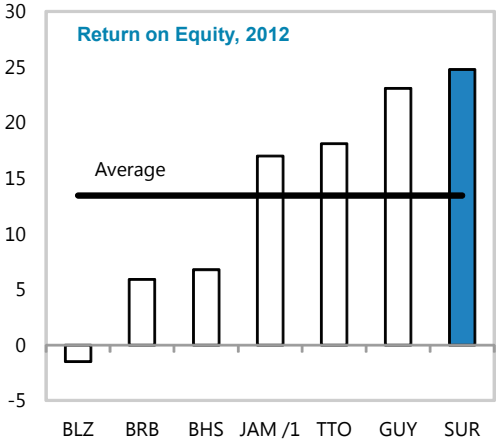


1/ 2011

...but financial intermediation is low.

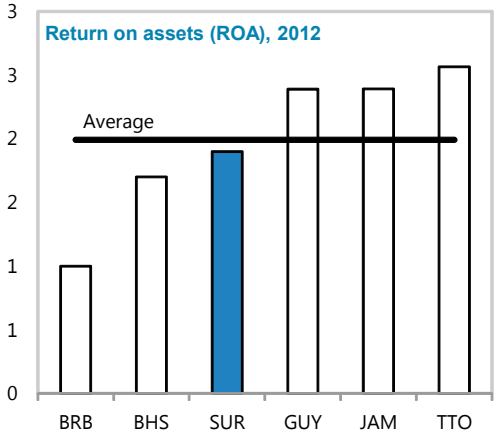


Relatively high return on equity…



1/ 2011

...partly reflects relatively low equity.



Source: National authorities.

SURINAME'S EXPOSURE TO GOLD PRICE FLUCTUATIONS[1]

A. Background

1. Gold mining has become very important in the Surinamese economy. In 2012, gold constituted an estimated 67 percent of merchandise exports. Approximately 40 percent of gold was produced at a single large mine (Rosebel), with the rest produced in small-scale operations. About 10 percent of government revenues are directly linked to gold production at Rosebel in the form of corporate income taxes, royalties and dividends. Direct fiscal revenues from the small-scale gold mining sector are small, but indirect effects through secondary spending add further to the fiscal impact of the gold sector.

2. Large-scale gold mining at the Rosebel mine started in 2004, while small-scale informal mining activities have been significant since the 1980s. The Rosebel mine, owned by Canadian mining company IAMGOLD Corp. and in which the Surinamese government holds a 5 percent equity participation, produced 382,000 ounces of gold at a cost of US$671 per ounce in 2012.[2] Without major expansion projects in recent years, production growth at Rosebel has been flat since 2009. Small-scale informal mining is an important source of revenue and employment in the interior of Suriname. Data on the sector is sparse, but the central bank estimates that gold production of small-scale mining was 591,900 ounces in 2011. Growth of the small-scale sector has been high in recent years, with production up by 17 percent since 2009.

3. New projects could substantially boost gold production in the future. IAMGOLD recently agreed with the government of Suriname to expand its existing operations.[3] IAMGOLD will maintain its existing entitlements and establish a joint-venture with the government for new mining activities in the area. Under the terms of the agreement the government will acquire a 30 percent participating interest on a fully-paid basis and may provide electricity at a subsidized rate for the new operation. The impact of the new concession on gold production volumes is unclear at this point, as some substitution away from the old mine to the new concession may occur. A second large-scale project, the Merian gold mine, has been agreed between Surgold, a joint-venture between U.S.-based Newmont and Alcoa, and the government of Suriname. The agreement includes a 25 percent equity participation of the government in this mining project.

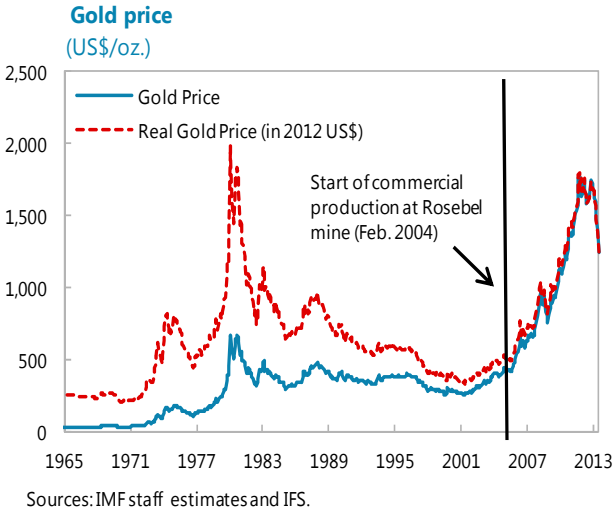
[1] Prepared by Jochen Schmittmann.

[2] The cash cost of production is expected to increase as operations have to move to processing harder rock.

[3] The agreement was approved by parliament on April 13, 2013.

B. Gold Market Developments and Price Forecasts

4. The start of large scale gold mining operations in Suriname coincided with a strong rise in gold prices. Gold prices rose from about US$260 per ounce in 2001 to a nominal all-time high of above US$1900 per ounce in August 2011. In constant US$, gold prices have come close to, but remained below the peak reached in the early 1980s. The increase in the gold price since 2001 coincided with net buying by the official sector (non-advanced economy central banks) and strong demand from financial investors.[4] In fact, a distinctive feature of gold in comparison with other commodities is the high share of investment driven demand (one-third excluding jewelry demand for investment purposes). Analysts point to various explanation for the increase in investor demand: gold has served as a safe haven asset with low correlations with other assets during the financial crisis; gold is seen as a hedge against potential inflation in light of expansionary monetary policy and high debt burdens in advanced economies; low real interest rates have decreased the opportunity cost of holding gold; a long-term downtrend in the U.S. dollar; investing in and trading of gold has become very easy via exchange traded funds (ETFs).[5]



Sources: IMF staff estimates and IFS.

5. Since 2011 gold traded range-bound between US$1600 and 1800 per ounce, until a sharp drop below US$1400 per ounce in April 2013. On April 15, gold registered its largest one day loss in 30 years, declining more than 9 percent. Analysts cite as reasons speculation about Cyprus selling part of its gold reserves and this setting a precedent for other European countries in crisis, continued subdued inflation in advanced economies despite unconventional monetary policies, speculation about a phase-out of quantitative easing in the U.S., greater risk appetite and a strengthening U.S. dollar. In recent months the gold price has weakened further and dipped briefly below US$1200.

6. Given the importance of investment demand for gold, the gold price is volatile when investor sentiment changes and longer-horizon price forecasts are not reliable. The price correction in April was not anticipated by professional forecasters in Bloomberg's consensus

[4] Jewelry demand has declined since 2001, while industrial demand has expanded slightly.

[5] ETF holdings in gold stood at about 1800 tons in 2012 from zero in 2004. This compares to global gold production of about 2700 tons in 2012.

estimates and demonstrates how rapidly gold prices can change. In addition, gold futures are poor predictors of subsequent price changes (Chinn and Coibion, 2013).

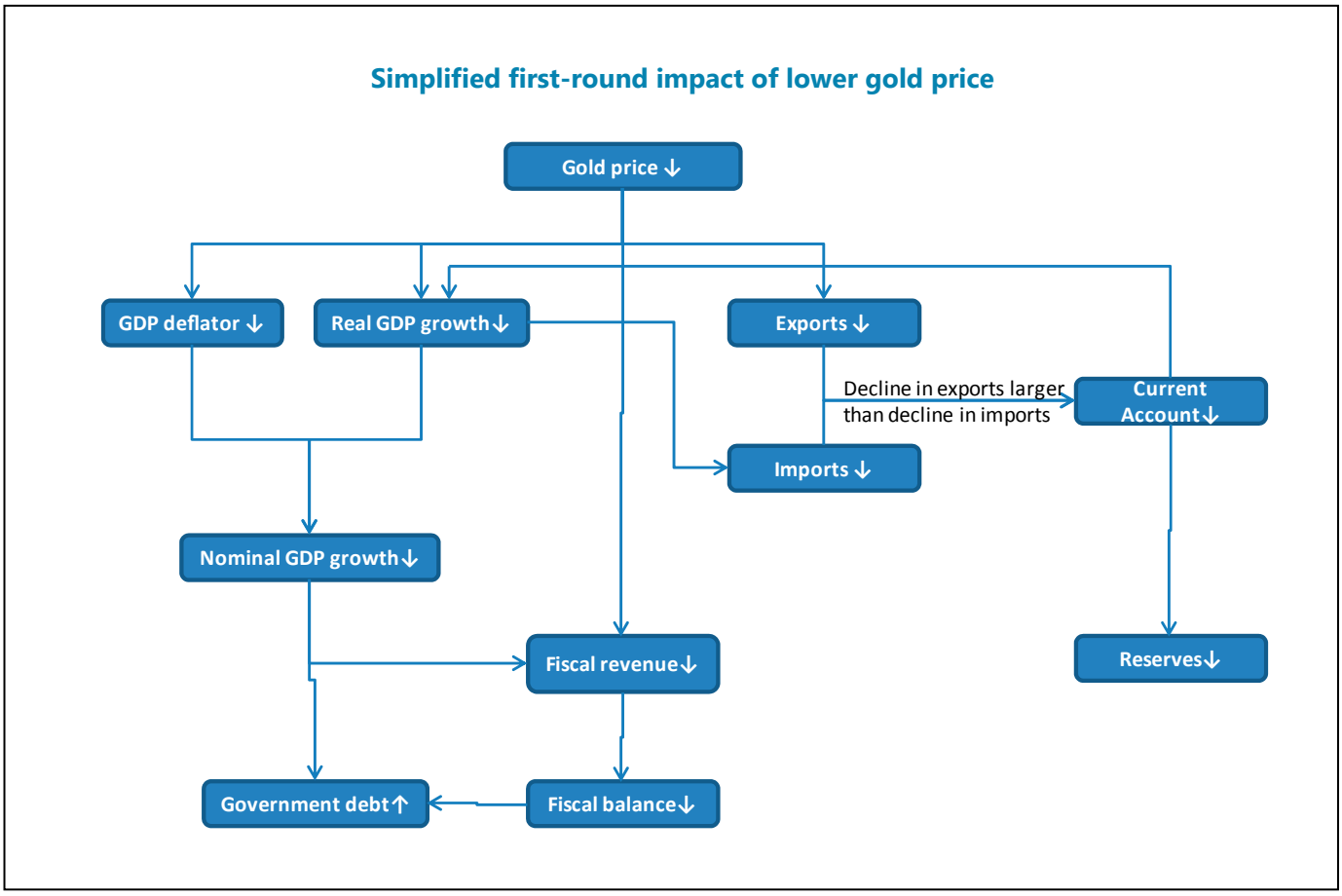
C. Stylized Links between the Gold Price and the Surinamese Economy

7. As a result of gold's prominent role in Suriname's economy, changes in the price of gold can substantially affect the macroeconomic outlook. The figure below presents the main direct linkages in stylized form, not including second round effects and policy responses. In the following discussion it is assumed that lower gold prices do not affect the quantity of gold produced or planned mining projects. However, a very large fall in the gold price could result in production cuts at existing mines and the cancellation or downsizing of new projects. In such a scenario the impact on the Surinamese economy would be far larger. While it is difficult to pin down the price level of gold at which this would unfold, current production costs at the Rosebel mine (US$671 per ounce in 2012, expected to rise to US$900 in 2013) provide some indication.

8. A decline in the price of gold would reduce real GDP growth through a contraction in domestic demand. With a lower gold price small-scale mining operations generate less income for owners and wages are likely to decline in the formal and informal gold sector. The reduction in domestic demand is expected to primarily hit construction, retail trade, restaurants and hotels, transport, and financial intermediation. Investment in gold mining and processing equipment would also fall. If gold production quantities remain unchanged, the contribution of the external sector to real GDP would be positive as imported quantities fall, while export quantities remain unaffected. The positive contribution of the external sector to real GDP growth is expected to be smaller than the negative effective of lower domestic demand. If the government would reduce spending in response to lower revenues as gold prices fall, this would further contract domestic demand. Any adjustment of gold quantities would directly affect real GDP growth in addition to the indirect effects through lower domestic demand. Nominal GDP growth would decline due to lower real growth and a lower GDP deflator.

9. The current account would deteriorate in response to lower gold prices. Assuming no change in export volumes, export values would decline in proportion with prices. Imports would decline as lower domestic demand results in lower import volumes. The reduction in exports can be expected to exceed the reduction in imports, because a significant portion of imports related to FDI projects and the operation of large-scale oil, aluminum and gold projects does not directly depend on domestic demand. Foreign exchange reserves would decline in response to a lower current account, assuming no additional capital inflows and a fixed exchange rate.

10. With a lower gold price, fiscal revenues decline as corporate taxes, taxes on small scale mining, sales taxes, gold royalties, and dividends are lower. The higher fiscal deficit in combination with lower nominal GDP results in a higher ratio of debt to GDP. With more than 10 percent of fiscal revenues directly linked to gold production, significantly lower gold prices could necessitate contractionary fiscal policy.



D. Gold Price Scenarios for Suriname—Assumptions

11. Two gold price scenarios are presented. The first with a gold price of US$1200 from Q3 2013 to 2018 and the second with a gold price of US$1000 over the same horizon. Given the historical development of the gold price, these scenarios appear well within the range of possible outcomes and more pessimistic outcomes would materialize should gold prices revert to their long-term historical average. In the scenarios it is assumed that lower gold prices do not affect the quantity of gold produced or planned mining projects.[6]

12. To model the impact of lower gold prices the following key assumptions are made. The scenario analysis in section E. presents only first-round effects of a lower gold price; fiscal tightening in response to the lower gold price is incorporated in section F. For the first round projections it is assumed that central government expenditures are not reduced while revenues decline. Specifically,

[6] One gold mining company indicated that gold prices below US$1200 become problematic. The first reaction to falling prices will be cost cutting measures which would affect the Suriname's economy through lower spending, employment, and wages by gold mining companies. If lower gold prices trigger production cuts or the suspension of new gold projects, the impact on the Suriname's economy would be much larger than presented in this note.

taxes and royalties from the gold sector are assumed to decline proportionally to the gold price and other tax revenues are modeled as a function of GDP growth.[7] For the balance of payments (BoP) under the gold at US$1200 scenario, it is assumed that exported quantities, FDI-related imports, and imports of major exporters (gold, oil, bauxite) are unchanged, while other non-FDI related imports are assumed to grow in line with the historical import/GDP elasticity. Services exports are assumed to grow with expected advanced economy GDP and services imports are projected to grow in line with non-FDI imports of goods. Private sector income debits are modeled as a function of bauxite and gold revenues.

13. In the gold at US$1000 scenario, additional assumptions are made to account for the severity of the price drop. Specifically, it is assumed that imports of goods are on average about 5 percent lower than based on the historical import/GDP elasticity as the economy adjusts to falling gold receipts. It is also assumed that other investment outflows by banks are about a third lower as the economy is less flush with liquidity.

Gold Price Assumptions

	2013	2014	2015	2016	2017	2018
Baseline (Current WEO)	1386	1251	1267	1284	1308	1336
WEO—Early 2013	1682	1699	1721	1741	1769	1810
Gold at US$1200	1354	1200	1200	1200	1200	1200
Gold at US$1000	1254	1000	1000	1000	1000	1000

Sources: World Economic Outlook, and staff calculations

[7] Non-mining tax revenues include income, wealth, rental, dividend, and sales taxes.

E. Gold Price Scenarios for Suriname—Results

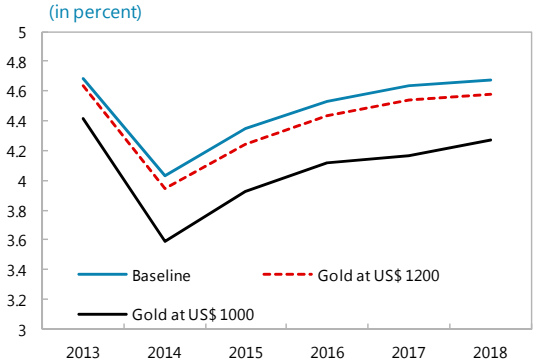
14. Under the scenario with gold at US$1200, we project only a small impact on growth (Table 1). Real GDP growth is expected to be 0.1 percent lower than under the WEO gold price baseline. Growth is lower due to slightly weaker demand, in particular from the important small-scale mining sector. As a result of lower gold prices and slightly lower CPI inflation, the GDP-deflator is projected to be between 0.1 and 0.2 percent lower.

15. With gold at US$1200, the fiscal balance will decline moderately if no policy measures are taken. On the revenue side, we expect corporate income taxes and royalties from the Rosebel gold mine to decline by about 30 percent over two years compared to 2012. Government expenditures are assumed to remain unchanged in absolute terms, but increase as a percentage of nominal GDP, as nominal GDP is lower than in the baseline due to lower real GDP growth and a smaller GDP deflator. The overall fiscal balance is projected to decline by 0.2 percent in 2014 versus the baseline and by 0.5 percent in 2018. The slightly higher fiscal deficit and lower nominal GDP would translate into somewhat higher government debt levels of about 42 percent of GDP in 2018 compared to about 40 percent under the baseline.

16. The impact of lower gold prices is strongest on the external side. With gold at US$1200, we project a current account that is 1 percent weaker than the baseline from 2014 onwards. In this scenario international reserves would stabilize around US$800 mn or 4 months of imports in the medium term.

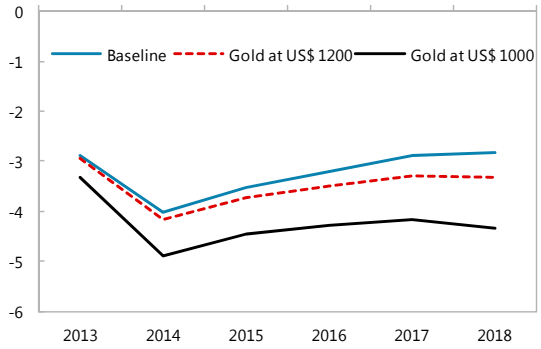
17. Under the more pessimistic scenario of gold at US$1000, stresses on the economy are more severe. Real GDP growth is projected to be about 0.4 percent below the baseline and the GDP deflator would also be lower, particularly in 2013 and 2014. The overall fiscal balance is projected to remain in deficit below 4 percent of GDP through the projection period. In 2018 we estimate a deficit of 4.3 percent versus 2.8 percent in the baseline. The larger deficit is the result of lower revenues, in particular from the gold sector, and, assuming

Real GDP Growth
(in percent)



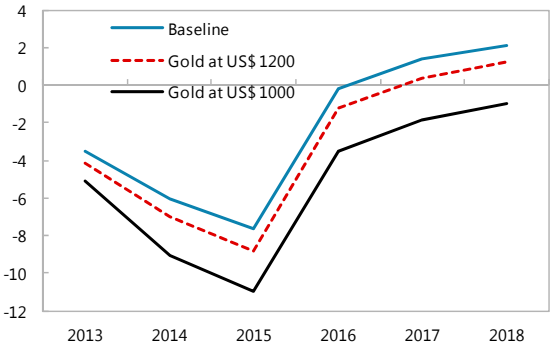
Source: IMF staff projections.

Central Government: Overall Balance
(in percent of GDP)



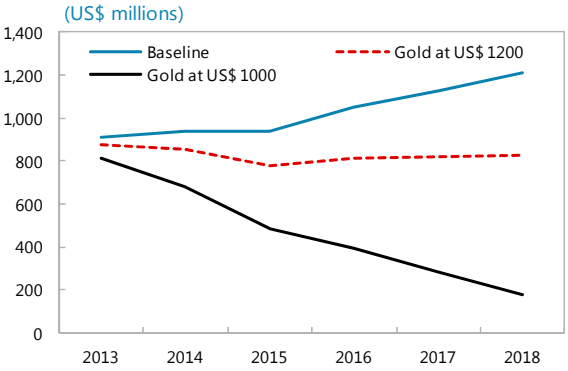
Source: IMF staff projections.

Current Account Balance
(in percent of GDP)



Source: IMF staff projections.

Gross international reserves
(US$ millions)



Source: IMF staff projections.

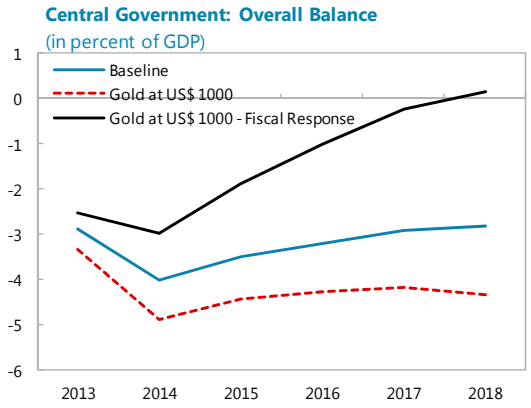
unchanged absolute expenditure and lower growth, a higher ratio of expenditure to GDP. With large fiscal deficits in the absence of corrective policy action, government debt levels would increase through the projection period and reach almost 47 percent of GDP in 2018.

18. With gold at US$1000, large current account deficits would lead to a substantial decline in reserves. In this scenario, assuming no policy action, current account deficits would persist throughout the medium term and reserves would be trending down. Even under the baseline the current account is expected to turn negative from 2013–15 as large planned FDI inflows to the mineral sector (predominantly the new IAMGOLD concession and Surgold's Merian mine) are expected to increase imports. Under the assumption that these FDI-financed projects are realized as planned even with a lower gold price, the current account deficit becomes large in 2014 and 2015 as the value of exports of which gold constitutes almost 70 percent declines. It is expected that the FDI projects are completed in 2016 resulting in a decline in imports and higher gold production in subsequent years. This is sufficient to achieve a small positive current account balance in 2017 under the baseline and the 1200-scenario, but not under the 1000-scenario.

19. A substantial decline of gold prices, possibly below US$1000, constitutes an important downside risk for Suriname. With gold prices falling below US$1000 non-linearities not modeled in this note could materialize. Specifically, some gold mines could become unprofitable and cease operations. At Rosebel mine, the one existing large-scale mining operation, IAMGOLD's cash cost of mining gold was US$671 per ounce in 2012, but this is expected to increase to about US$900 in 2013, leaving little cushion for price drops below US$1000. The two new large-scale mining projects could also be delayed or even cancelled if gold prices would drop substantially. In addition, according to anecdotal evidence, many small-scale miners operate on slim margins. Gold production cuts would directly lower GDP growth, while widening fiscal and external deficits could require strong contractionary policies.

F. Gold Price Scenarios for Suriname—Incorporating a Fiscal Response

20. The large impact of gold prices at US$1000 on the fiscal and external balance makes a policy response under this scenario likely and necessary. With limited monetary policy instruments and a fixed exchange rate, the government's main policy tool is fiscal. It is assumed for illustrative purposes that the government engages in pro-cyclical fiscal policy



Source: IMF staff projections.

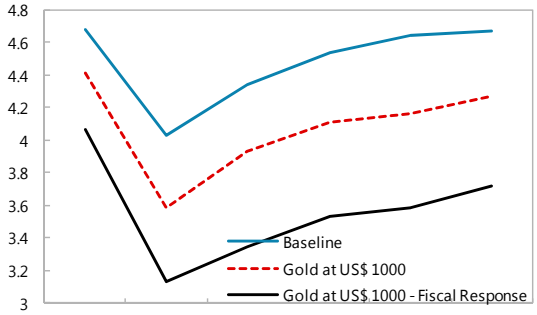
tightening by reducing expenditures to achieve an overall fiscal balance of around zero by 2018.[8]

21. The fiscal consolidation under this scenario would be substantial (Table 2). Compared to the scenario with gold at US$1000 without a policy response, the improvement in the fiscal balance by 2018 would be more than 4 percent of GDP. Even compared to the baseline, the improvement would be almost 3 percent of GDP. The reduction in expenditure would be relatively evenly spread out over the next 5 years. With much lower fiscal deficits, government debt levels would start declining after 2014 from 39.5 to 33.5 percent of GDP in 2018.

22. The pro-cyclical fiscal contraction would reduce real GDP growth. Compared to the 1000-scenario without the fiscal response, real GDP growth is projected to decline a further 0.5 percent per year from 2014 through 2018. The GDP deflator also declines as CPI inflation is expected to be lower.

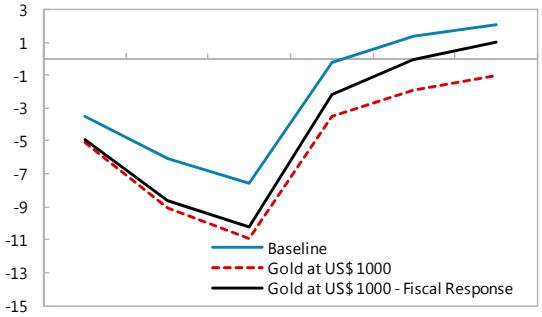
23. The large fiscal policy response would stabilize the external position under this scenario. Large current account deficits would still occur in 2014 and 2015 as these are mainly caused by imports related to FDI projects in the mineral sector. However, lower growth and less government demand would lower non-FDI related imports, helping to achieve a balanced current account by 2017 versus a deficit of 1.7% without a fiscal policy response. Importantly, international reserves would then stabilize around US$600 mn or 3.5 months of imports in the medium term.

Real GDP Growth
(in percent)



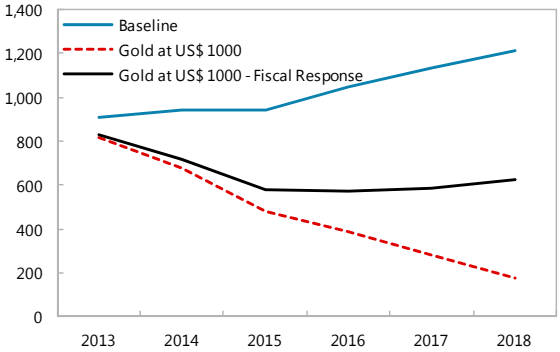
Source: IMF staff projections.

Current Account Balance
(in percent of GDP)



Source: IMF staff projections.

Gross international reserves
(US$ millions)



Source: IMF staff projections.

[8] Alternatively, the government could increase revenues through tax hikes and improved tax collection. Given the low ratio of tax revenue to GDP in Suriname, a combination of revenue and expenditure measures appear better options than purely expenditure driven consolidation.

G. Conclusion

24. Suriname's fiscal and external positions are vulnerable to lower gold prices. In recent years the expansion of gold production has coincided with rising gold prices. If gold prices were to fall to levels prior to the financial crisis, the authorities would have to take painful corrective measures to avoid widening deficits. Planned new gold mining projects will further increase the country's dependence on gold, in particular with the government taking substantial equity stakes in the projects. It is therefore critical to build buffers while gold prices remain high by historical standards and to develop a strategy to diversify the economy.

Table 1. Gold Price Scenarios: Selected Indicators

		2013	2014	2015	2016	2017	2018
Real Sector (Annual percentage change)							
Real GDP Growth	Baseline	4.7	4.0	4.3	4.5	4.6	4.7
	Gold at US$ 1200	4.6	3.9	4.2	4.4	4.5	4.6
	Gold at US$ 1000	4.4	3.6	3.9	4.1	4.2	4.3
GDP deflator	Baseline	0.6	3.3	4.2	4.3	4.5	4.5
	Gold at US$ 1200	0.5	3.2	4.1	4.2	4.3	4.3
	Gold at US$ 1000	-0.1	2.3	4.0	4.2	4.3	4.3
Central Government (In percent of GDP)							
Revenue and grants	Baseline	25.7	24.8	25.3	25.6	25.8	25.7
	Gold at US$ 1200	25.7	24.8	25.3	25.6	25.8	25.6
	Gold at US$ 1000	25.6	24.6	25.2	25.5	25.7	25.6
Total expenditure	Baseline	28.6	28.8	28.8	28.8	28.7	28.6
	Gold at US$ 1200	28.7	28.9	29.0	29.1	29.0	29.0
	Gold at US$ 1000	28.9	29.5	29.7	29.8	29.9	29.9
Overall balance	Baseline	-2.9	-4.0	-3.5	-3.2	-2.9	-2.8
	Gold at US$ 1200	-2.9	-4.2	-3.7	-3.5	-3.3	-3.3
	Gold at US$ 1000	-3.3	-4.9	-4.4	-4.3	-4.2	-4.3
Debt	Baseline	37.1	39.6	40.5	40.7	40.5	40.2
	Gold at US$ 1200	37.2	40.0	41.1	41.7	41.9	42.0
	Gold at US$ 1000	37.9	41.7	43.6	44.9	45.9	46.8
External Sector (In percent of GDP, unless otherwise indicated)							
Current Account Balance	Baseline	-3.5	-6.1	-7.6	-0.2	1.4	2.1
	Gold at US$ 1200	-4.1	-7.0	-8.8	-1.2	0.4	1.2
	Gold at US$ 1000	-5.1	-9.1	-10.9	-3.5	-1.9	-1.0
Change in reserves (- increase in US$ millions)	Baseline	155	-31	3	-108	-84	-80
	Gold at US$ 1200	190	23	76	-38	-7	-6
	Gold at US$ 1000	250	136	198	91	110	100
Gross international reserves (US$ millions)	Baseline	910	941	938	1,046	1,129	1,210
	Gold at US$ 1200	875	852	776	813	820	826
	Gold at US$ 1000	816	680	481	390	280	180
In months of imports	Baseline	4.3	4.5	4.3	5.4	5.6	5.6
	Gold at US$ 1200	4.1	4.1	3.6	4.2	4.2	4.0
	Gold at US$ 1000	3.9	3.4	2.3	2.1	1.5	0.9

Sources: National authorities and staff calculations

Table 2. Gold Price Scenarios with Fiscal Response: Selected Indicators

		2013	2014	2015	2016	2017	2018
Real Sector (Annual percentage change)							
Real GDP Growth	Baseline	4.7	4.0	4.3	4.5	4.6	4.7
	Gold at US$ 1000	4.4	3.6	3.9	4.1	4.2	4.3
	Gold at US$ 1000 - Fiscal Response	4.1	3.1	3.3	3.5	3.6	3.7
GDP deflator	Baseline	0.6	3.3	4.2	4.3	4.5	4.5
	Gold at US$ 1000	-0.1	2.3	4.0	4.2	4.3	4.3
	Gold at US$ 1000 - Fiscal Response	-0.1	2.0	3.5	3.8	3.9	3.9
Central Government (In percent of GDP)							
Revenue and grants	Baseline	25.7	24.8	25.3	25.6	25.8	25.7
	Gold at US$ 1000	25.6	24.6	25.2	25.5	25.7	25.6
	Gold at US$ 1000 - Fiscal Response	25.6	24.8	25.4	25.8	26.1	26.0
Total expenditure	Baseline	28.6	28.8	28.8	28.8	28.7	28.6
	Gold at US$ 1000	28.9	29.5	29.7	29.8	29.9	29.9
	Gold at US$ 1000 - Fiscal Response	28.1	27.8	27.3	26.9	26.3	25.9
Overall balance	Baseline	-2.9	-4.0	-3.5	-3.2	-2.9	-2.8
	Gold at US$ 1000	-3.3	-4.9	-4.4	-4.3	-4.2	-4.3
	Gold at US$ 1000 - Fiscal Response	-2.5	-3.0	-1.9	-1.0	-0.2	0.1
Debt	Baseline	37.1	39.6	40.5	40.7	40.5	40.2
	Gold at US$ 1000	37.9	41.7	43.6	44.9	45.9	46.8
	Gold at US$ 1000 - Fiscal Response	37.2	39.5	39.4	38.1	36.0	33.6
External Sector (In percent of GDP, unless otherwise indicated)							
Current Account Balance	Baseline	-3.5	-6.1	-7.6	-0.2	1.4	2.1
	Gold at US$ 1000	-5.1	-9.1	-10.9	-3.5	-1.9	-1.0
	Gold at US$ 1000 - Fiscal Response	-4.9	-8.6	-10.2	-2.2	0.0	1.0
Change in reserves (- increase in US$ millio	Baseline	155	-31	3	-108	-84	-80
	Gold at US$ 1000	250	136	198	91	110	100
	Gold at US$ 1000 - Fiscal Response	239	106	142	7	-12	-43
Gross international reserves (US$ millions)	Baseline	910	941	938	1,046	1,129	1,210
	Gold at US$ 1000	816	680	481	390	280	180
	Gold at US$ 1000 - Fiscal Response	826	720	578	571	584	626
In months of imports	Baseline	4.3	4.5	4.3	5.4	5.6	5.6
	Gold at US$ 1000	3.9	3.4	2.3	2.1	1.5	0.9
	Gold at US$ 1000 - Fiscal Response	4.0	3.6	2.9	3.2	3.3	3.4

Sources: National authorities, and staff calculations

References

Brebner, Danielm and Xiao Fu, 2012, "Gold: adjusting for zero", Deutsche Bank market update, 24 September 2012.

Chinn, Menzie D. and Olivier Coibion, 2013, "The predictive content of commodity futures", Journal of Futures Markets, forthcoming.

Lewis, Michael, 2013, "Special report: gold's new reality", Deutsche Bank markets research, 18 April 2013.

Shafiee, Shahriar, and Erkan Topal, 2010, "An overview of global gold market and gold price forecasting", Resources Policy 35, 178–189.

Tremblay, Anne-Laure, 2013, "Gold report", BNP Paribas commodity markets strategy, 28 February 2013.

FISCAL SUSTAINABILITY AND NATURAL RESOURCE WEALTH FOR SURINAME[1]

A. Background

1. This paper examines methodologies for setting an appropriate fiscal anchor in a natural resource rich country such as Suriname. While the processing of bauxite into alumina was once the key mineral product in Suriname, in recent years it has been surpassed by oil and gold, and all three commodities contribute significantly to fiscal revenues. Thus the fiscal position is heavily exposed to developments in the mineral sector. Although mineral wealth creates opportunity to accelerate a country's development, it also comes with risks such as enhanced susceptibility to fluctuations in commodity prices which can be large and persistent, exhaustibility of natural resource deposits, a tendency to pro-cyclical fiscal policies that can amplify business cycles, and Dutch disease. This raises the question of how best to set fiscal policy to make use of mineral bounty to support development while at the same time building up buffers to support countercyclical policy and extend the benefits of such resources to future generations (as natural resources are exhaustible).

B. Mineral Resources of Suriname

2. Oil is the largest mineral contributor to fiscal revenues. The country has a near balance in terms of its fuel imports and exports. However Staatsolie, the national oil company, has fairly competitive production costs and therefore is a key contributor to central government revenues both in the form of dividends and taxes. Indeed, oil revenues comprised 29 percent of fiscal revenues in 2012. Proven oil reserves were estimated at 78.8 million barrels in mid-2012, which at current extraction rates should last for 13 years approximately, but it is estimated that recent discoveries have extended this horizon by two additional years. Staatsolie is conducting intense exploration work off shore, both on its own account or through exploration contracts, and the geological conditions of its coastal territory indicate good chances of new findings.

3. However, gold provides two thirds of exports, and its share of government revenue has also grown significantly to 13 percent currently. This has been enabled by the fact that the largest mine, Rosebel, increased its production substantially at the same time as international gold prices reached historically high levels. While there is significant small scale gold mining as well, it remains largely informal and very lightly taxed.[2] The gold deposits in Suriname are part of the Guianas Shield which stretches between the Amazonas river in Brazil and the Orinoco river in Venezuela, so reserves appear substantial, only limited by their technical and economic viability.

[1] Prepared by Mario Mansilla and Daniel Kanda.

[2] Informal gold mining is, however, an important source of employment and income in rural areas. Given its limited fiscal impact, for the purposes of this note the focus is on the formal mining sector.

Apart from the Rosebel mine, which has now reached geological formations that are more expensive to mine, there are currently two projects that jointly could in principle double the volumes of production in the next five years or so. One of those projects is sponsored by Iamgold, the owner of Rosebel, and the other by a joint venture between Newmont and Suralco. The viability of those two new projects depends critically on the evolution of the international price for gold, which at present appears to have passed its peak.

4. Bauxite used to be by far the most important natural resource for Suriname, but its importance has declined significantly. Around the time of World War II Suriname was a leading bauxite exporter in the world, producing about 25 percent of the total global production. However, over the following decades, changes in the international market, mainly related to significant increases of supply from other competitor countries and recent low international prices, have led Suriname to lose its market share (currently estimated at less than three percent), and therefore to a diminished relevance of the commodity in the domestic economy as well as for fiscal purposes. It currently accounts for less than 2 percent of fiscal revenues.

C. Fiscally Sustainable Policies for Suriname

5. There are several approaches to help guide fiscal policies in resource-rich economies. This note analyzes two of them: the permanent income hypothesis and the inter-temporal budget constraint method. Under the permanent income model, fiscal authorities estimate the net present value of the natural resource wealth, determine the portion that can be disposed of per period, and design the fiscal policies that would be consistent with those flows. The inter-temporal budget constraint method calculates the fiscal sustainability gap, which implicitly yields the fiscal target that is consistent with the inter-temporal budget constraint (taking the projected flow of mineral revenues and the timing of its exhaustibility into account), and thus can be maintained indefinitely without leading to a need for sudden sharp disruptive adjustments to fiscal policy.

Estimating the mineral wealth of Suriname

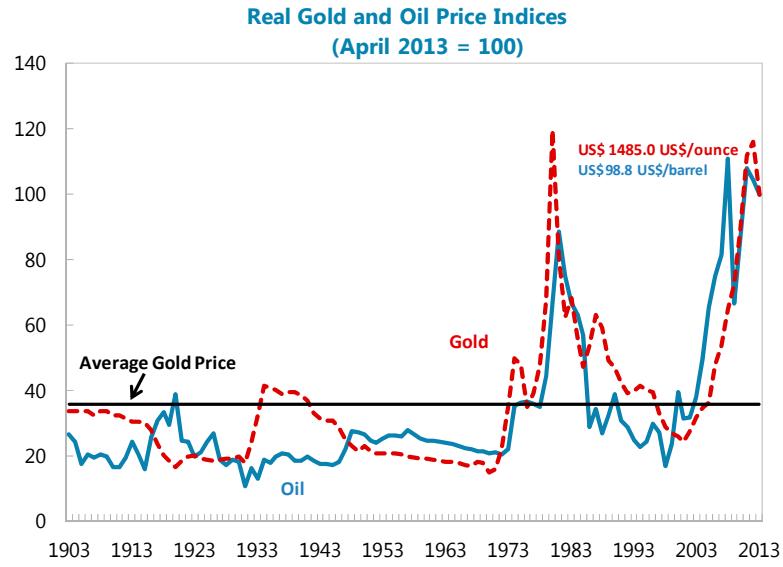
6. Estimates of the mineral wealth of a country are inherently subject to large margins of error. In general, total mineral deposits are unknown, and the value of the deposits depends on a volatile long run price outlook. This uncertainty increases the difficulty of maintaining prudent countercyclical policies when commodity prices rise. It is common to have country authorities assuming overoptimistically that upswings in commodity prices are permanent, which leads to procyclical spending initiatives that often have to be scaled back significantly when the upswing ends. Moreover, turning points in the commodity price cycle are notoriously difficult to predict, exposing many commodity exporters to destabilizing boom-bust cycles.

7. A prudent approach to estimating mineral wealth for budget purposes would be based on conservative projections of long run price movements and mineral deposits. Thus, in general, price projections that are persistently well above the historical long run average should be avoided, unless there is a well founded and generally acceptable rationale for doing otherwise. Also, estimates of mineral deposits should be largely based on proven reserves, with probable or possible

reserves being given a much lower weight in the estimation. Such an approach minimizes the possibility of over exuberant spending and boom bust cycles, and is conducive to fostering the efficient use of fiscal resources. Moreover, if the mineral wealth turns out to have been underestimated ex post, the result is a stronger fiscal position and an accumulation of buffers that further strengthens macroeconomic stability.

8. For Suriname, the key assumptions underpinning the estimate of mineral wealth are as follows:

- Gold prices follow WEO projections up to 2018, and from then on the price falls gradually at five percent per year until it reaches a level of US$500/ounce, a level consistent with the observed long run average price since 1903.



Sources: Federal Reserve, Energy Information Administration, and the National Mining Association.

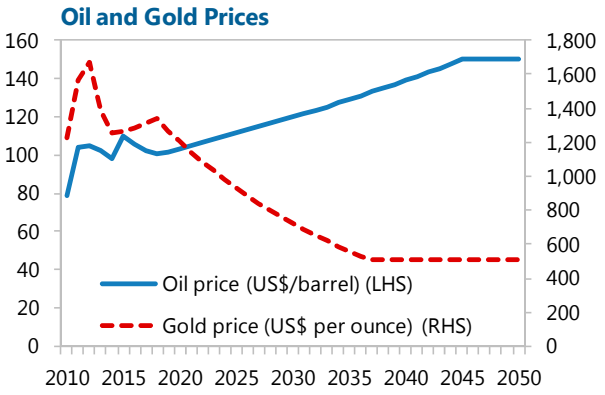
- It is assumed the gold mines will be commercially exploitable for up to 20 years provided the international price is above US$800 which is estimated to be the break even cost for the mines operating in Suriname. Below that price level production would drop rapidly to zero.
- Fiscal income from informal gold mining (currently small) is not included in the estimation.
- Oil prices are also assumed to follow WEO projections until 2018, but given the additional value added of the extracted oil once the refinery starts operations, a premium of 18 percent is added from 2015 onward. After 2018, prices are assumed to increase by 1.5 percent per year until they

reach 150 dollars per barrel (projected by the U.S. Energy Information Administration to be the long term price).[3]

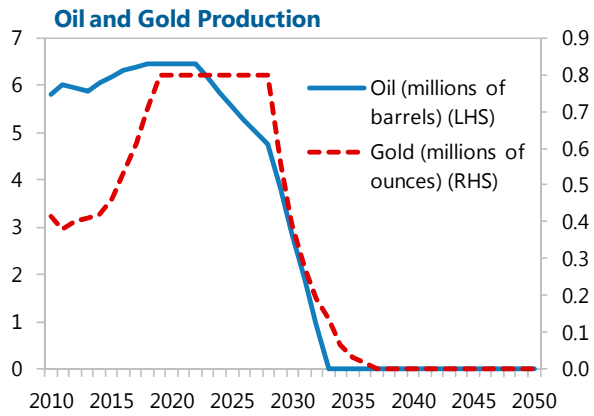
- Proven reserves of oil are assumed to last for 15 years at the projected levels of production in 2018 and no significant discovery is assumed to take place in the period. The production decline is assumed to be gradual and starts after year ten and continues until year twenty.

- Bauxite-related fiscal revenues have declined to low levels, and so are not a key focus of the estimation of mineral wealth. In any case, bauxite prices are assumed to follow WEO projections until 2018, with volumes similar to current levels. Beyond that, it is assumed that revenues from bauxite as a share of GDP stay at 2018 levels up to 2032, and then taper off to zero by 2050.

- Government tax rates are assumed constant at the 2012 level.



Sources: World Economic Outlook; and U.S. Energy Information Administration.



Sources: Suriname Authorities; and Fund staff estimates.

Under those parameters the value of the mineral resources for the central government is calculated as the discounted value of future revenue flows using a 4 percent real discount rate, which yields US$ 5.5 billion, just above the current GDP.

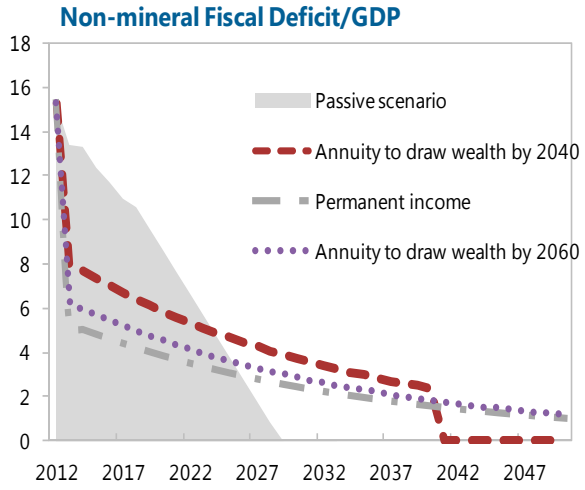
The permanent income hypothesis

9. Under the strict definition of the permanent income rule the flows available for consumption should match the returns to the discounted value of the project's future flows, so that the capital is preserved forever. It is possible, however, to estimate alternative scenarios based on less stringent rules that aim at graduating the spending over a period of time that is long enough to permit a gradual transition to the time in which the natural resources will be depleted.

[3] U.S. Energy Information Administration. Annual Energy Outlook 2012, Early Release. 2012. www.eia.gov

Such rules would also allow the authorities to target sustainable levels of non-mineral fiscal balances.

10. Several options can be considered for the consumption of the estimated mineral wealth, consistent with long run sustainability. In the first instance, the passive scenario (consistent with staff's baseline macro framework) is where no action is taken in the near term, but the authorities are forced to take corrective action over the long run as mineral revenues dwindle to zero in about 20 years (i.e., the non-mineral deficit is forced to be near zero), or face the need for significantly increasing the public debt. Alternatively, other scenarios show that early fiscal tightening prolongs the time horizon for the consumption of wealth and mitigates the need for large abrupt tightening once mineral revenues run out. A fixed annual nominal consumption consistent with early tightening to a non-mineral deficit target of about 5 percent of GDP would enable the consumption of mineral revenues forever (permanent income hypothesis scenario). Tightening to a target of 6 percent of GDP would exhaust mineral wealth at around 2060, but at that point the annual nominal consumption of mineral revenue would be a small share of GDP, requiring only minor offsetting action. Lower consolidation efforts lead to progressively shorter life of mineral resources. Given the large gap between the fiscal outcome in 2012 and sustainable paths, early and substantial consolidation seems warranted.



Source: National authorities, and staff calculations

Inter-temporal budget constraint[4]

11. A more comprehensive method for evaluating the fiscal stance of a country is to assess fiscal sustainability based on the inter-temporal budget constraint. This is the most generally accepted method, and is based on the standard economic definition of sustainability. It poses the following question: if the authorities decide to take no further fiscal measures from now onward, can they maintain that posture over an infinite horizon? If they can do so, then the inter-temporal budget constraint is satisfied, and the fiscal position is considered sustainable (and the fiscal sustainability gap is then zero). However, in most countries this is not the case, and protracted inaction then typically leads to a situation where the debt-GDP ratio rises continuously without bound, with interest payments taking an ever increasing share of government expenditure. This crowds out non-interest spending and increases the difficulties associated with financing the debt

[4] The methodology in the following sections is based on Kanda (2011) and IMF (2012).

until the government is forced to take drastic action to put the fiscal position on a path consistent with sustainability.

12. The measurement of sustainability gaps thus informs policymakers about the amount of measures needed to get to the point of sustainability. Indeed, reflecting these considerations, the European Commission (EC) has been at the forefront of pushing for the widespread calculation and use of fiscal sustainability gaps, and it is now customary for all EU countries to calculate fiscal sustainability gaps, in coordination with the EC, every few years. The practical experience gained has helped refine the exercise into a credible coherent one that is able to take into account all the major exogenous changes expected to affect the fiscal position over the long run, including the two most common—natural resource depletion and population aging.

13. For simplicity, the current exercise for Suriname excludes population aging. While Suriname's population is currently young, the old age dependency ratio has been creeping up, and with the planned institution of a nation-wide social safety net, aging pressures are likely to become increasingly significant over the long run. However, incorporating this would require long run projections of population aging and its impact on fiscal spending on pensions and health care which are currently not available. To the extent that aging pressures exist, this would require additional fiscal consolidation measures to maintain sustainability (i.e. the fiscal sustainability gap would be larger).

Estimating the fiscal sustainability gap

14. The starting point for this analysis is the equation defining the evolution of public debt:

$$B_t = B_{t-1}(1+r) - P_{t-1} \tag{1}$$

Where B_t, r, and P_t, represent the debt stock at the beginning of period t, the discount rate, and the primary surplus in period t, respectively. Dividing equation (1) by nominal GDP gives the following equation:

$$b_t = b_{t-1}\left(\frac{1+r}{1+g}\right) - p_{t-1}\left(\frac{1}{1+g}\right) \tag{2}$$

Where b_t and p_t represent the debt to GDP ratio at the beginning of period t and the primary surplus to GDP ratio in period t, respectively, and represents the growth rate of GDP, assumed to be constant for algebraic simplicity. Solving equation (2) forward and imposing the no-Ponzi-scheme condition yields the government inter-temporal budget constraint:

$$b_t = \left(\frac{1}{1+r}\right)\sum_{j=0}^{\infty}\left(\frac{1+g}{1+r}\right)^j p_{t+j} \tag{3}$$

For any given fiscal stance (e.g. the current structural primary fiscal balance) and given the outlook for growth and other expected exogenous changes such as demographic change and depletion of natural resources, a "passive" path for the primary balance over an infinite horizon can be estimated. For Suriname, the most substantial changes analyzed in this exercise are due to the evolution of natural resource wealth, which impacts the expected path for fiscal revenues and therefore the passive path for the primary balance. On that basis the sustainability gap in stock terms (which is the total inter-temporal debt in present value terms) is then given by:

$$V_t = b_t - \left(\frac{1}{1+r}\right)\sum_{j=0}^{\infty}\left(\frac{1+g}{1+r}\right)^j p_{t+j} \tag{4}$$

And the sustainability gap in flow terms—hereafter simply called the sustainability gap—which is defined as the constant change to the primary balance in percent of GDP such that the sustainability gap in stock terms is zero is thus derived as:

$$S_t = (r-g)\left[b_t - \left(\frac{1}{1+r}\right)\sum_{j=0}^{\infty}\left(\frac{1+g}{1+r}\right)^j p_{t+j}\right] \tag{5}$$

15. Thus, essentially, for a government to satisfy its inter-temporal budget constraint it must run future primary surpluses of sufficient size in present value terms to pay off the initial stock of debt. This is required so that over the long run the government can meet all its obligations. Otherwise, at some point it will become clear that the government cannot meet all its obligations, which will prompt investors to refuse to buy its debt and thus force drastic changes to fiscal policy.

16. Staff's estimate of Suriname's sustainability gap is about 14 percent of GDP. This large gap primarily reflects the outlook for mineral revenue, which is expected under staff's conservative baseline assumptions to decline from around 11 percent of GDP in 2012 to zero over the long run (thus requiring offsetting measures of similar magnitude to satisfy the inter-temporal budget constraint) and the large current fiscal deficit which is adding to debt and will need to be offset by measures.[5]

17. In a scenario where no corrective measures are taken while mineral revenue is depleted, public debt would mathematically rise to over 700 percent of GDP by 2060 in view of the substantial sustainability gap. Alongside, the primary balance is projected to decline by

[5] Using a somewhat less conservative assumption where the nominal mineral revenue projected for 2018 is maintained thereafter only slightly reduces the sustainability gap to 13¾ percent of GDP, as that nominal value declines continuously as a share of GDP over the long run.

11½ percentage points to a deficit of 14½ percent of GDP, while the overall fiscal deficit deteriorates by over 74 percentage points to around 78 percent of GDP, the exploding debt stock causes interest payments to rise exponentially, consuming an ever-increasing share of fiscal expenditure. In practice, of course, investors would repudiate Suriname's debt long before debt rises to such levels, forcing abrupt fiscal tightening to restore sustainability. In contrast, at the opposite extreme, immediate full adjustment implies that gross debt is driven to zero by 2015, with a substantial buildup of government assets thereafter to help offset the depletion of natural resource revenues.

Optimal fiscal consolidation paths

18. The pace of consolidation will reflect the balancing of twin conflicting objectives of reducing both the output and the fiscal sustainability gaps. A model to assess the optimal pace of consolidation is constructed as follows: the authorities are assumed to care about both the sustainability and output gaps, and to prefer that both be zero. However, these objectives are conflicting, in that action to close the sustainability gap (fiscal tightening) comes at the expense of widening the output gap in a negative direction, while on the other hand, action to close the output gap (fiscal loosening) increases the sustainability gap. Thus, over an infinite horizon, the authorities' problem can be characterized as choosing a path for the fiscal stance that minimizes the following quadratic objective function.

$$\sum_{t=0}^{\infty} \beta^t \left(\alpha \mathrm{O}_t^2 + \gamma S_t^2 \right) \tag{6}$$

Where O_t, α γ and β, represent the output gap in percent of GDP in period t, the weight placed by the authorities on closing the output gap, the weight placed by the authorities on closing the sustainability gap, and the authorities' rate of time preference, respectively, with $\beta = 1/(1+r)$.

19. The output gap is assumed to evolve according to the following equation:

$$\mathrm{O}_t = \lambda \mathrm{O}_{t-1} - \xi \left(f_t - f_{t-1} \right) \tag{7}$$

Where f_t, λ and ξ, represent, respectively, discretionary fiscal measures taken (in percent of GDP) in period t, an autoregressive parameter on the output gap which determines how long it would take for the output gap to be eliminated through self-repair of the economy rather than fiscal action, and the fiscal multiplier.

20. It is necessary to adjust the sustainability gap formula to reflect discretionary actions. If we adjust equation 5 to take account of discretionary fiscal measures taken in time t, in addition to the "passive" evolution of the primary surplus, this yields:

$$S_t = (r-g)\left[b_t - \left(\frac{1}{1+r} \right) \sum_{j=0}^{\infty} \left(\frac{1+g}{1+r} \right)^j p_{t+j} - \left(\frac{1}{r-g} \right) f_t \right] \tag{8}$$

And some algebraic manipulations reveal that the sustainability gap evolves as follows:

$$S_t = \left(\frac{1+r}{1+g}\right)S_{t-1} - \left(f_t - f_{t-1}\right) \tag{9}$$

21. Equation 9 confirms that in the normal case where the discount rate exceeds the GDP growth rate, delaying actions to ensure sustainability is costly. The magnitude of the sustainability gap increases over time absent discretionary consolidation measures, since the discount rate (which governs the pace of debt accumulation) exceeds the GDP growth rate (which governs the burden of debt relative to GDP).

22. The authorities' problem is to choose the size of fiscal measures in time t to minimize the objective function (6) subject to equations (7) and (9). Given the quadratic preferences and linear constraints, we know that the optimal fiscal tightening in any time period is a linear function. We therefore speculate that the fiscal consolidation pace is governed by the following equation:

$$f_t - f_{t-1} = A\mathrm{O}_{t-1} + BS_{t-1} \tag{10}$$

Where $A > 0$ and $B > 0$. Substituting equation (10) into the first order condition of the authorities' problem, and solving for A and B yields:

$$A = \frac{\alpha\xi\lambda}{\left(\alpha\xi^2 + \gamma\right)} \tag{11}$$

$$B = \frac{\gamma\left(1+r\right)}{(\alpha\xi^2 + \gamma)(1+g)} \tag{12}$$

23. Thus, the optimal path for fiscal consolidation depends on the initial values for the output and sustainability gaps, the fiscal multiplier, the speed of self-correction of output gaps, the discount and GDP growth rates, and the authorities' preferences. For Suriname, starting in year 2013, the initial sustainability gap as of 2012 is calculated above at 14 percent of GDP, while it is estimated that the (positive) output gap in 2012 was 0.5 percent of GDP. λ is calibrated to equal 0.5, implying that absent fiscal measures and ceteris paribus, an output gap of 2 percent of GDP is eliminated after six years via spillovers, confidence effects, monetary policy actions, self repair etc. The fiscal multiplier is taken to be relatively small at 0.5, as Suriname is a small and very open economy. The nominal discount rate and long run average nominal GDP growth rate are taken to be 10 percent and 9¼ percent respectively.

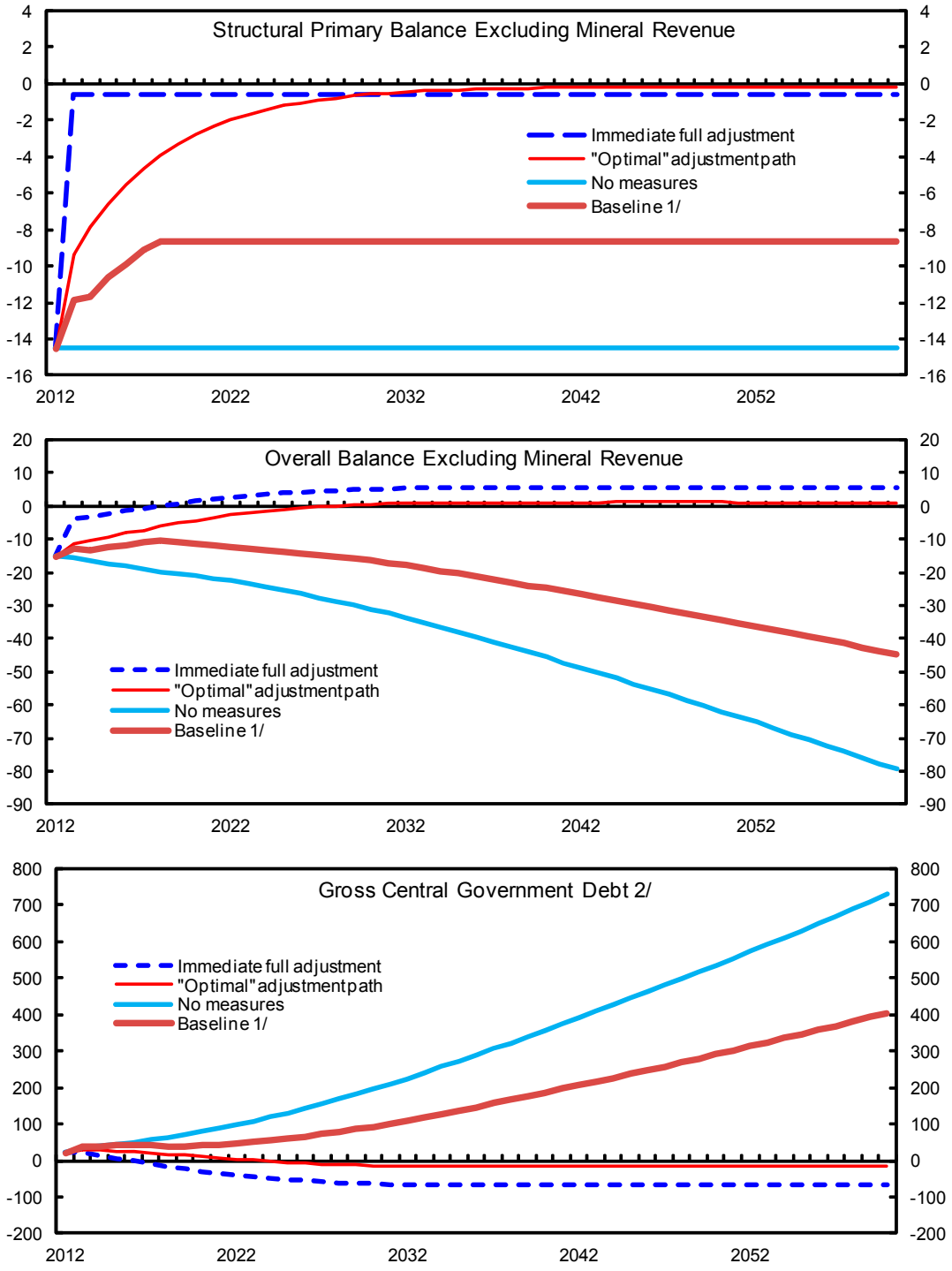
24. The authorities' preference weight parameters are determined based on "revealed preference." The approach is as follows. We first renormalize the policy function, without loss of generality, by assuming that $\gamma = 1 - \alpha,$ where $0 \le \alpha \le 1.$ We then take the value of α to be that

which is consistent with the amount of fiscal tightening taken the last time there were similar circumstances with a large need for fiscal tightening (2011). In 2011, starting with an output gap of -0.5 percent and a sustainability gap of about 13 percent, the authorities implemented structural fiscal consolidation of 4 percent of GDP, which is consistent with a value of α of 0.89, and this is the value we use in our exercise.

25. In general, the optimal consolidation path requires significant front-loading of adjustment, but also envisages that full elimination of the sustainability gap takes place over a long horizon. Quadratic preferences mean that the pressure to act to reduce any of the two gaps under consideration increases in nonlinear fashion with the size of that gap. Thus, if the sustainability gap is large enough relative to the output gap, as is the case for Suriname, the optimal immediate fiscal tightening would be one that trades a substantial reduction in the sustainability gap for some negative movement in the output gap. Therefore (subject to the weights in the authorities' preferences) the larger the sustainability gap, the more optimal it is to front-load adjustment.

26. For Suriname, the model predicts an optimal path where there is fiscal tightening of about 5 percent of GDP in 2013, with the pace of adjustment tapering off significantly thereafter. This would essentially fully offset the slippage of 2012. The initial impact of the structural fiscal tightening measures is however partly offset by the impact of the worsening output gap on revenues, and thus the headline overall balance is projected to only improve by about 3 percent of GDP in 2013, with the remaining improvement to the headline balance coming in later years as the output gap declines toward zero. Over the medium term (i.e. by 2018) the optimal structural fiscal adjustment effort totals 10½ percent of GDP, which would offset a projected 3½ percent of GDP decline in mineral revenues over the period and improve the headline fiscal balance to a surplus of 2½ percent of GDP for 2018. Alongside, the non-mineral deficit declines to 5¼ percent of GDP in 2018. Over the long run the sustainability gap declines steadily, though the pace of decline drops over time, and it is eliminated in 2043. Because of the delay in achieving sustainability, the total amount of measures needed rises slightly above the sustainability gap to 14¼ percent of GDP.

Suriname: Fiscal Sustainability, 2012-60
(Percent of GDP)



Sources: Authorities data, and Staff calculations.

1/ Baseline incorporates staff medium term baseline projections up to 2018, and assumes no further fiscal adjustment thereafter.
2/ Negative debt reflects the accumulation of assets

D. Final Remarks

27. Both methodologies outlined above indicate a large fiscal adjustment need over the medium and long run. Indeed, the estimated sustainability gap of 14 percent is close to the gap observed as the size of the non-mineral deficit for 2012 which needs to be fully offset in some fashion as mineral revenues dwindle over time. The permanent income hypothesis approach outlined above however envisages a scenario where the bulk of adjustment is done in a single step, by choosing a fixed nominal amount of mineral revenues which should be consumed over the long run, whereas the optimal fiscal consolidation approach seeks to take into account the authorities' preferences and the costs of spreading out consolidation efforts over a long horizon. Overall, a medium term non-mineral fiscal deficit target in the neighborhood of 5¼ percent of GDP, while ambitious, appears appropriate given the size of the sustainability gap. The scale of required adjustment underscores the need for developing a sound fiscal framework to support consolidation efforts.

28. Given the uncertainties related to the estimation of mineral wealth, fiscal targets would need to be periodically updated. This would allow for appropriate changes to the fiscal target as the outlook for mineral wealth changes over time, but a conservative approach should be consistently used in such assessments to ensure the continued soundness of the fiscal position.

References

Fritz-Krockow, Bernhard, et.al., 2009, "Suriname: Toward Stability and Growth," International Monetary Fund, Western Hemisphere Department.

International Monetary Fund. 2012, "Macroeconomic Policy Frameworks for Resource-Rich Developing Countries". IMF Policy Paper.

Kanda, Daniel, 2011, "Modeling Optimal Fiscal Consolidation Paths in a Selection of European Countries", IMF Working Paper No 11/164, 2011.

U.S. Energy Information Administration. Annual Energy Outlook 2012, Early Release. 2012. www.eia.gov.

THE LABOR MARKET IN SURINAME[1]

This note describes the features of the labor market and provides preliminary analysis of its role in allocating employment and sustaining economic growth, based on available limited data.

A. Characteristics of the Labor Market

1. Suriname has a small and relatively young population. The population was estimated at 539,910 persons as of 2011.[2] Of these, the working age (15–64) population was estimated at 353,750 persons, making up 66 percent of the population. The population is relatively young, with an old age dependency ratio of 9.82 percent in 2011. However, there are incipient signs of aging, as the old age dependency ratio has crept up from 9.48 percent in 2007.

Estimated midyear population by age, 2007–2011

Population by age group	2007	2008	2009	2010	2011
A. Young (0–14)	150,106	150,651	151,088	151,410	151,420
B. Working age (15–64)	328,653	334,465	340,291	346,110	353,750
C. Aged population (65+)	31,157	31,936	32,764	33,650	34,740
Old age dependency ratio(C/B)	**9.48**	**9.54**	**9.63**	**9.72**	**9.82**
Total	**509,970**	**517,052**	**524,143**	**531,170**	**539,910**

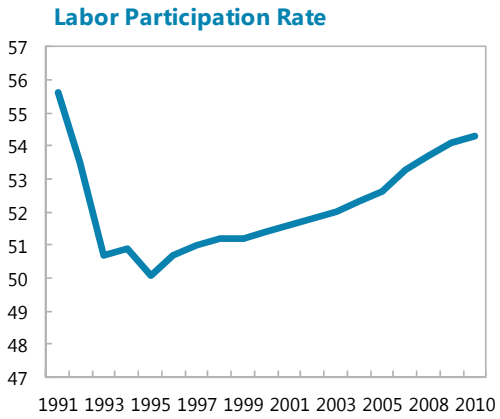
Source: Bureau of Statistics, Suriname

2. Official data indicate relatively low labor participation. The labor participation rate declined from 58 percent in 1990 to 50.1 in 1993 and gradually recovered to 55 percent in 2011, the lowest in the Caribbean region. Female participation lags that of males as females comprise 36 percent of the labor force. The data may however understate the true level of participation, as a survey in 2008 indicated that Suriname has large informal employment estimated at about 53 percent of formal employment.

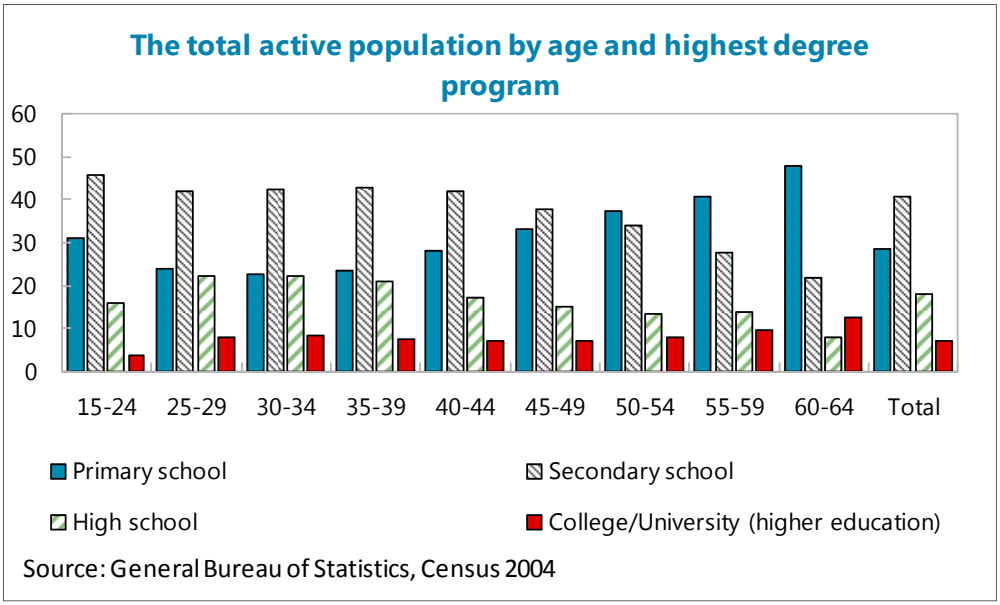
[1] Prepared by Qiaoe Chen.

[2] There are also around 300,000 Surinamese living in the Netherlands.

3. Primary educational attainment is close to regional norms. The available information on primary education completion rate in the selected countries shows that Suriname has close to average primary education quality. The 2004 Census in Suriname (the latest available information), indicated that among the economically active population,[3] 28 percent had competed only primary education, 41 percent had completed secondary school, 18 percent had completed high school, and 7 percent completed college/university education.



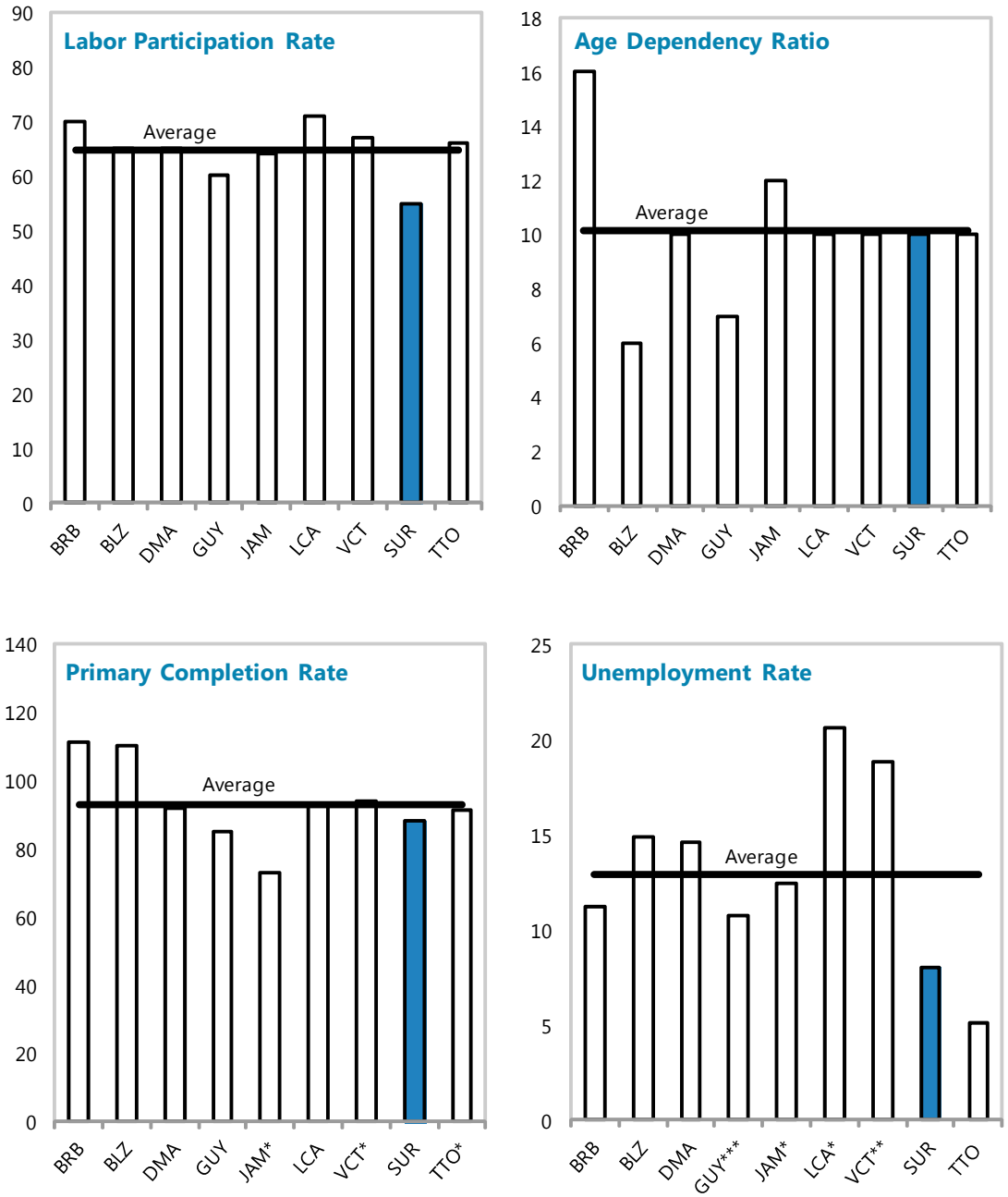
Source: International Labor Organization.



Source: General Bureau of Statistics, Census 2004

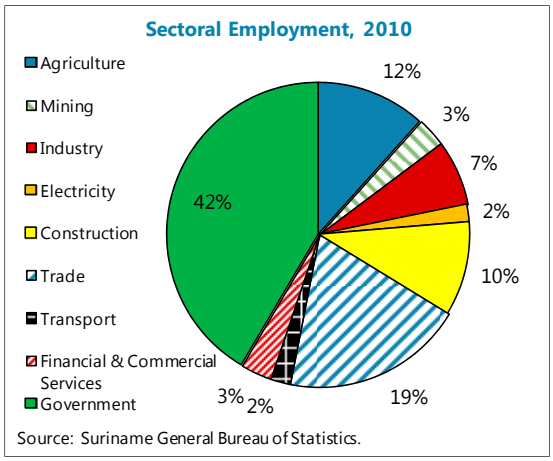
[3] Economically active population comprises persons aged over 15 who were either employed or unemployed during the referring period.

Labor Market Indicators in Selected Caribbean Countries



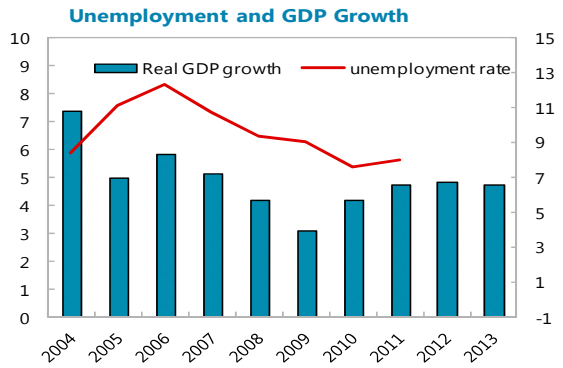
Source: World Bank 2011 data
Note: * 2010 data; **2008 data ***2006 data

4. A large share of employment is in the public sector. According to data from the Bureau of Statistics, the government is the largest employer, providing around 41,000 jobs (42 percent of total formal employment) in 2010. The share of government in formal employment has been stable since 2007. The second largest sector is the trade, hotels and restaurants sector, which has been growing strongly, stimulated by buoyant commodity export prices, and accounted for 19.4 percent of total employment in 2010 compared with 17.2 percent in 2007. Agriculture sector ranks third in employment, with a stable share of 12 percent. The construction and industry sectors are also significant employers.



Source: Suriname General Bureau of Statistics.

5. The official unemployment rate is on the high side, and has only declined gradually despite strong GDP growth. The reported unemployment rate dropped gradually from the peak of 12 percent in 2006 to 8 percent in 2011. Using a "relaxed" definition,[4] unemployment has hovered around 13 percent between 2004 and 2011. Employment-Output elasticity analysis based on Okun's law also indicates low employment elasticity in Suriname at about 0.3, at the low end for countries in the region.[5]



Source: Suriname General Bureau of Statistics.

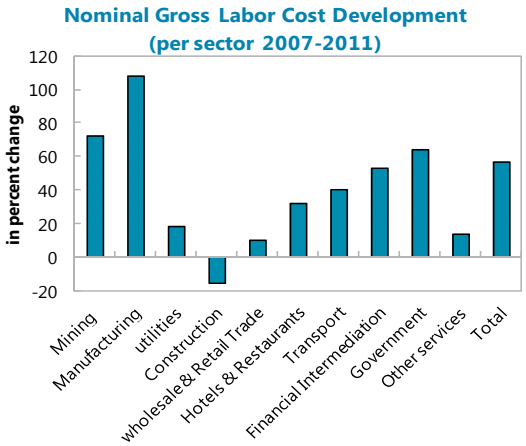
6. There is reportedly a strong preference for government jobs because of access to health and pension benefits and greater employment protection. With the exception of some large companies, employees in private sector do not have employer-provided health insurance and pension schemes, while government employees have both benefits. However, unemployed persons are eligible to apply for medical care support and financial support from the ministry of social affairs and housing. This creates an incentive for job seekers to turn down private sector jobs, claim unemployment and health care benefits from the government, and engage in informal employment while waiting for a position in the government to open up, which in turn increases official unemployment data. Close knit family support networks, including from the large Surinamese population living in the Netherlands, reportedly make this option a relatively viable one for a

[4] In the relaxed definition, the unemployment rate is measured as the proportion of unemployed and discouraged workers in the total of employed, unemployed and discouraged workers.

[5] According to the IMF working paper on *Labor Market Issues in the Caribbean: Scope to Mobilize Employment Growth* (forthcoming), the employment elasticity in selected Caribbean countries are between 0.16–1.64.

substantial segment of the population. Clearly, this incentive structure impedes the flexibility of the labor market, notwithstanding the existence of the Labor Exchange Bureau under the ministry of labor which provides job seekers and employers (including government) with relevant services to help match job seekers to vacancies.

7. At the same time, nominal labor costs (wages and other benefits) have increased sharply over 2007–11. The increase was led by the manufacturing, mining, and government sectors. The nominal labor cost in the manufacturing sector more than doubled in this period of time, while that of mining sector increased by 72 percent and followed by government sector, 64 percent. The increase of nominal labor cost in these sectors may reflect the impact of booming commodity (gold and oil) export prices on mining and manufacturing sector profitability as well as on mineral-related fiscal revenues. Skills shortages are also reported to be substantial in the technical fields, potentially increasing wage pressures in those areas.



Source: Suriname General Bureau of Statistics.

8. Wage bargaining in the private sector is generally firm-based, but influenced by outcomes of the large employers. Most bargaining is firm-based with the exception of 6 federalized trade unions in the mining sector and one central trade union for government employees. Collective agreements on conditions of employment often cover more than one year, but wage bargaining is typically done on an annual basis, and union demands are typically based on inflation/cost of living, company performance, and the agreements struck by key large companies and government. Thus, given the dominant share of government employment, wage increases granted by government can have a significant effect on wage negotiations in the private sector.

9. Employment protection is stringent. According to the 2012–2013 World Competitiveness Report, Suriname is ranked 137 out of 144 countries in hiring and firing practices. Practically all firing decisions require employers to seek some kind of permission from regulators, and pursuant to the Dismissal Permits Act, it is impossible for the employer to give notice to terminate an employee without a valid reason. For example, for immediate dismissal due to employee misbehavior, an employer should notify the Head of the Labor Inspection under the ministry of labor within 4 days after the act. After receiving notice, the Head of the Labor Inspection will decide whether the dismissal was valid within 14 days. If the Head of Labor Inspection disagrees with the dismissal, it will be invalid and the employee would be made whole for any salary lost due to the dismissal. If an employer wants to terminate an employment contract due to other reasons such as restructuring or economical reasons, the employer should first apply for dismissal permit from the Dismissal Board in the ministry of labor, technological development and environment. Within 30 days, the Dismissal Board will notify the employer whether the permission is granted or not. In case of economical reasons, the employer is required to produce a report explaining the fragile financial position of the

company, the selection procedure and the way consultations were conducted on the position of the company and solutions to prevent dismissal. Depending on the employment duration, the fired person could have up to 6-months severance payment after dismissal. For government employees, dismissal is even more difficult so that in practice, government employees are typically only suspended and continue to receive their salaries (and raises) and benefits.

Labor market efficiency indicators

Indicators	Value	Rank/144 countries
Cooperation in labor-employer relations	4.1	92
Flexibility of wage determination	5.0	76
Hiring and firing practices	2.8	137
Redundancy costs, weeks of salary*	9	31
Pay and productivity	3.2	123
Reliance on professional management	4.2	69
Brain drain	3.5	64
Women in labor force, ratio to men*	0.60	115

Source: World Competitiveness Report 2012–2013

Note: Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (*).

B. Policy Recommendations

10. The authorities' plans to establish a national health care and pension system will achieve laudable social objectives and could also substantially improve labor mobility. In addition to improving health outcomes and old age security, a universal system that equalizes access to social benefits between the private and public sector, between large and small companies, and between the formal and informal sector, would substantially reduce current impediments to job-switching, thus enhancing the flexibility and allocative efficiency of the labor market. The new system, to be implemented by early 2014, should also improve the accuracy of labor market statistics, as incentives to falsely report unemployment in order to secure social welfare benefits would be eliminated. The informal sector is also likely to be sharply reduced.

11. Relaxing employment protection could also boost job creation and the development of the private sector, helping to sustain robust growth over the long run. The current stringent

policies likely discourage job creation, as employers are likely to be cautious about hiring employees that cannot be easily let go in bad economic times. Moreover, strong employment protection may encourage unions to demand substantial wage increases that are not necessarily consistent with productivity growth or the long run profitability of companies, ultimately undermining the competitiveness of the economy. For the government sector, relaxing employment protection could improve accountability and efficiency, encourage increased mobility from government to the private sector, and reduce the size of the public sector wage bill.

12. Plans to implement a minimum wage should be approached with caution as they could hinder job creation at the low wage end of the market. During the Article IV mission in 2013, staff was informed that as one pillar of social security system reform, tripartite meetings were held between government, employer representatives and trade union representatives to discuss the establishment of a minimum wage in Suriname. The minimum wage will be in the range of SRD 3 per hour to SRD 5 (equivalent to the current salary of a cleaning job in the public sector) per hour. To the extent that there are substantial portions of economic activity currently being remunerated at less than the envisaged minimum, instituting the minimum wage could hurt job creation at the lower end of the wage scale or drive such activities into the informal sector, which would be detrimental to the very people the law is designed to help. It would be advisable to gather more data about wage developments in a broad cross section of society to inform the decision on the appropriate minimum wage.

13. Improving the business environment will help diversify economy from relying on natural resources and create more job opportunities. Suriname is ranked 114 out of 144 countries in global competitive index, indicating significant potential to improve business environment, including labor market efficiency.

14. Enhancing labor market data quality and frequency will help policy makers to better understand its development and provide needed information for good policy. One important constraint for analysis is the lack of high frequency and timely labor market data. Data available to staff only comprise the Estimates Midyear Population by Age Group and Sex, period 2007–2011, projected population by gender for 2013 to 2024, annual unemployment rate from 1998 to 2011, and data on sectoral employment and nominal gross labor cost from 2007 to 2010 complied by the Bureau of Statistics. The latest census was done in 2004.