The Experience of Ghana with Macro-Fiscal Frameworks and Institutional Reforms

IMF (FAD) Conference on Fiscal Management of Mining and Petroleum in West Africa (Kempinski, Accra)

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Outline

1. Macro-Fiscal Process in Ghana
2. Institutional & Regulatory Framework for Macro-Fiscal Process in Ghana
3. Fiscal Rules Characterizing Macro-Fiscal Framework in Ghana
4. Conclusion
1. MACRO-FISCAL PROCESS IN GHANA
What is the Macroeconomic Framework?

A macroeconomic framework is a set of sectoral projections (for the real, external, fiscal, and monetary sectors) consistent with each other, the policy framework, and a given set of macroeconomic goals.
Interrelations Among Macroeconomic Accounts

**REAL SECTOR**

**National Accounts** (local currency, flows)
- Private consumption
- General government consumption (Wages + Purchases of goods and services)
- Private investment
- General government investment
- Exports of goods and nonfactor services
- Imports of goods and nonfactor services

**EXTERNAL SECTOR**

**Balance of Payments** (US dollars, flows)
- **CURRENT ACCOUNT**
  - Exports of goods and nonfactor services
  - Imports of goods and nonfactor services
  - Factor services (net)
  - Transfers (net)
    - Official
    - Private
- **CAPITAL & FINANCIAL ACCOUNT**
  - Direct investment
  - Medium/long-term capital (net)
    - Private sector (o/w banks)
    - Government
  - Short-term capital (net)
    - Private sector (o/w banks)
    - Government
- Overall balance
- Reserves (Change in net foreign assets)

**FISCAL SECTOR**

**Fiscal Accounts** (local currency, flows)
- Revenues
- Grants
- Expenditures
- Current
- Capital
- Overall balance
- Financing
  - Domestic financing (net)
    - Banking system
    - Nonbanking sector
  - External financing (net)

**MONETARY SECTOR**

**Net foreign assets**
- Net domestic assets:
  - Net credit to government sector
  - Credit to banks
  - Other items (net)
  - Reserve money
  - Currency
  - Banks reserves

**DMBs** (local currency, stocks)
- Net foreign assets
- Banks' reserves
- Net domestic assets:
  - Net credit to government sector
  - Credit to nongovernment sector
  - Other items (net)
- Liabilities to monetary authorities
- Private sector deposits
## Recent Macro-Fiscal Developments in Ghana

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Real GDP Growth (%)</td>
<td>9.3</td>
<td>7.3</td>
<td>4.0</td>
<td>3.9</td>
<td>3.7</td>
<td>8.3*</td>
<td>6.8</td>
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<tr>
<td>Yearly Inflation (%)</td>
<td>8.8</td>
<td>13.5</td>
<td>17.0</td>
<td>17.7</td>
<td>15.4</td>
<td>11.8</td>
<td>8.9</td>
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<tr>
<td>Fiscal Deficit (% GDP)</td>
<td>(11.5)</td>
<td>(10.1)</td>
<td>(10.2)</td>
<td>(6.3)</td>
<td>(9.3)</td>
<td>(6.0)</td>
<td>(4.5)</td>
</tr>
<tr>
<td>Primary Balance (% GDP)</td>
<td>(8.2)</td>
<td>(5.4)</td>
<td>(3.9)</td>
<td>(0.2)</td>
<td>(1.4)</td>
<td>0.7</td>
<td>1.6</td>
</tr>
<tr>
<td>Wage Bill (% of Tax Revenue)</td>
<td>53.3</td>
<td>57.6</td>
<td>49.1</td>
<td>43.7</td>
<td>47.1</td>
<td>45.9</td>
<td>42.0</td>
</tr>
<tr>
<td>Gross Public Debt (% GDP)</td>
<td>47.9</td>
<td>55.9</td>
<td>70.2</td>
<td>71.6</td>
<td>73.1</td>
<td>68.7**</td>
<td>&lt;70</td>
</tr>
<tr>
<td>Interest Rate (91 Day TB, %)</td>
<td>23.1</td>
<td>18.8</td>
<td>25.8</td>
<td>24.5</td>
<td>16.4</td>
<td>13.3</td>
<td>n/a</td>
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<tr>
<td>Current Account Bal (% GDP)</td>
<td>(11.8)</td>
<td>(11.7)</td>
<td>(9.5)</td>
<td>(7.5)</td>
<td>(6.6)</td>
<td>(4.6)</td>
<td>n/a</td>
</tr>
<tr>
<td>Trade Balance (% of GDP)</td>
<td>(10.2)</td>
<td>(7.9)</td>
<td>(3.6)</td>
<td>(8.3)</td>
<td>(4.2)***</td>
<td>2.3</td>
<td>n/a</td>
</tr>
<tr>
<td>Gross Int Reserves (US$ billion)</td>
<td>5.4</td>
<td>5.6</td>
<td>5.5</td>
<td>5.9</td>
<td>6.2</td>
<td>7.6</td>
<td>n/a</td>
</tr>
<tr>
<td>Gross Int Reserves (Months)</td>
<td>2.9</td>
<td>3.8</td>
<td>3.5</td>
<td>3.5</td>
<td>4.3</td>
<td>≥3.5</td>
<td>n/a</td>
</tr>
<tr>
<td>Exc Rate (GHs/$:dep/app)</td>
<td>-18.4</td>
<td>-15.0</td>
<td>-34.9</td>
<td>-13.9</td>
<td>-9.7</td>
<td>-4.4</td>
<td>n/a</td>
</tr>
</tbody>
</table>

**Note:**
1) * average of Q1-Q3 of 2017
2) ** Nov, 2017
Macro-Fiscal Framework (MFF) and the Budget Cycle
Overview of Macro-Fiscal Process in Ghana

1. **March-May**: Development of the Macro-Fiscal Framework (MFF)
2. **End April**: Completion of Salary Negotiation to inform the MFF
3. **End May**: Preparation of the FSD informed by MFF
4. **End June**—Preparation and Circulation of Budget Guidelines informed by MFF
5. **Aug-Nov**—Update of MMF to inform the annual Budget
6. **November**—Presentation of annual Budget informed by updated MMF to Parliament
2. INSTITUTIONAL & REGULATORY REFORMS
Regulatory Framework

1. Public Financial Management Act, 2016 (Act 921)
2. Petroleum Revenue Management Act, 2011 (Act 815) and its amendments
3. PFM Regulation (Work in Progress)
4. Earmarked Funds Capping and Realignment Act, 2017 (Act 947)
5. African Union Import Levy Act, 2017 (Act 952)
6. Ministries, Departments and Agencies (Retention of Funds) Act, 2007 (Act 735)
7. Enabling Acts of all Earmarked Funds (e.g. DACF, NHIF, GETF, Road Fund Act, etc)
10. Performance Criteria under the IMF Programme
11. ECOWAS Convergence Criteria
Institutional Framework

**Macro-Fiscal Framework**

**Economic Research & Forecasting Division**

**Real Sector**
- MoF (RSD)
  - GDP (RSD/GSS)
  - Inflation (BOG/GSS)

**Fiscal Sector**
- MoF (ERFD)
  - Tax Rev/BR (GRA, RPD, RSD)
  - Non Tax Rev (NTRU/RPD)
  - Grants/Loans (ERMS/DMD)
  - Expenditure (Budget/CAGD)

**Monetary Sector**
- Bank of Ghana
  - Monetary Aggregates
  - Monetary Policy Rate
  - Interest Rate

**External Sector**
- Bank of Ghana
  - Balance of Payments
  - Exchange Rate
  - Gross International Reserves
Institutional Framework

1. Technical Committee for GDP Forecasting
2. Technical Committee for Petroleum Revenue Forecasting
3. Technical Committee for Revenue Forecasting
4. Economic Policy Coordinating Committee (EPCC)
5. Role of Economic Management Team (EMT): *Strengthened to provide greater oversight and advise on macro-fiscal issues*
6. Cabinet: Approval of macro-fiscal proposals at the executive level
7. Parliament: Approval of Budget underpinned by Macro-fiscal framework
Institutional Reforms

1. Public Financial Management Reforms

   a) Institution of Public Interest and Accountability Committee-PIAC (PRMA S51)
   b) Establishment of the Stabilisation and Heritage Fund (PRMA S11)
   c) Institution of the Investment Advisory Committee for management of the Ghana Petroleum Funds (PRMA S29)
   d) Fiscal policy principles and indicators now entrenched in the PFM act (PRMA S16)
   e) Mandatory Mid-year Review now institutionalized in the PFM Act (S28)
   f) Wage negotiation institutionalized to be completed by April of each year (PRMA S19)
   g) Fiscal Strategy Document institutionalized to be submitted to Cabinet by May (PRMA S15)
Institutional Reforms

2. Technical Assistance


b) IMF Functional Review of MoF (Including ERFD- Forecasting & Fiscal Risk Units) – 2016 & 2017

c) SECO Support on Development of FPP Model – 2014 to Present

d) IMF Support for FARI (Fiscal Analysis for Resources Industry) model development – 2014 to Present
3. FISCAL RULES UNDERPINNING MACRO-FISCAL FRAMEWORK
Petroleum Benchmark Revenue Estimation

• The Petroleum Benchmark Revenue (BR) is estimated in line with the First Schedule of the PRMA as follows:

  Price:
  • \( P_{t+1} = \frac{(P_{t-4} + P_{t-3} + P_{t-2} + P_{t-1} + P_t + P_{t+1} + P_{t+2})}{7} \)

  Output:
  • \( Q_{t+1} = \frac{(Q_{t-1} + Q_t + Q_{t+1})}{3} \)

• Estimates are certified by an independent certifier in line with the PRMA.
Sources and Distribution of Petroleum Revenues - PRMA

**GOG Take**
- Royalties
- 70% of Net CAPI
- Others (CIT, Surface Rentals, etc)

**Annual Budget Funding Amount (70%)**
- At least 70% for CAPEX
- Spent in 4 priority areas approved by parliament (Agric, Educ, Health, Infra)

**Corporate Income Tax, Dividends, Surface Rentals, Saltpond Royalties, Gas Receipts, AOEs, etc**
- Ghana Petroleum Funds (30%)
- Ghana Stabilisation Fund (70%)
  - Threshold (US$300M)
  - Excess over threshold used for Contingency (0%) and debt repayment/Sinking Fund (100%)

**Ghana Heritage Fund (30%)**

**Royalties**
- Jub (5% O, 4.1% G)
- TEN (5% O, 3% G)
- Sankofa (7.5% O, 5% G)

**Carried and Participating Interest**
- Jub (13.64%)
- TEN (15%)
- Sankofa (20%)

**Payments to GNPC from CAPI**
- Equity Financing Costs
- 30% of CAPI net of EFC

**PETROLEUM HOLDING FUND**
- Ghana Petroleum Funds (30%)
### Petroleum Receipts & Utilisation

#### Receipts

<table>
<thead>
<tr>
<th>N</th>
<th>RECEIPTS</th>
<th>Unit</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Total Receipts</td>
<td>US$Mn</td>
<td>444.12</td>
<td>541.62</td>
<td>846.77</td>
<td>978.02</td>
<td>396.17</td>
<td>247.18</td>
<td>3,453.88</td>
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<tr>
<td>2</td>
<td>Royalties</td>
<td>US$Mn</td>
<td>122.94</td>
<td>150.75</td>
<td>175.41</td>
<td>192.81</td>
<td>104.21</td>
<td>57.85</td>
<td>803.97</td>
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<tr>
<td>3</td>
<td>Carried And Part Int</td>
<td>US$Mn</td>
<td>321.18</td>
<td>390.43</td>
<td>453.57</td>
<td>499.33</td>
<td>270.08</td>
<td>149.94</td>
<td>2,084.54</td>
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<tr>
<td>4</td>
<td>Corporate Income Tax</td>
<td>US$Mn</td>
<td>-</td>
<td>-</td>
<td>216.99</td>
<td>284.55</td>
<td>20.41</td>
<td>29.55</td>
<td>551.49</td>
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<tr>
<td>5</td>
<td>Surface Rentals</td>
<td>US$Mn</td>
<td>-</td>
<td>0.45</td>
<td>0.80</td>
<td>0.91</td>
<td>0.47</td>
<td>0.47</td>
<td>3.08</td>
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<tr>
<td>6</td>
<td>Gas Receipts</td>
<td>US$Mn</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0.55</td>
<td>9.30</td>
<td>9.86</td>
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<tr>
<td>7</td>
<td>Investment Income</td>
<td>US$Mn</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0.12</td>
<td>0.03</td>
<td>0.07</td>
<td>0.23</td>
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<tr>
<td>8</td>
<td>Price Differential - Unipec</td>
<td>US$Mn</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0.30</td>
<td>0.42</td>
<td>-</td>
<td>0.72</td>
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#### Utilisation

<table>
<thead>
<tr>
<th>N</th>
<th>UTILISATION</th>
<th>Unit</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><strong>GNPC</strong></td>
<td>US$Mn</td>
<td>207.96</td>
<td>230.95</td>
<td>222.42</td>
<td>180.71</td>
<td>126.86</td>
<td>88.50</td>
<td>1,057.40</td>
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<tr>
<td></td>
<td>o/w Equity Financing Cost</td>
<td>US$Mn</td>
<td>132.48</td>
<td>124.63</td>
<td>68.32</td>
<td>44.16</td>
<td>65.61</td>
<td>58.11</td>
<td>493.32</td>
</tr>
<tr>
<td>2</td>
<td><strong>GOG</strong></td>
<td>US$Mn</td>
<td>75.48</td>
<td>106.32</td>
<td>154.10</td>
<td>136.55</td>
<td>61.25</td>
<td>30.38</td>
<td>564.08</td>
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<tr>
<td>3</td>
<td>o/w Net CAPI</td>
<td>US$Mn</td>
<td>236.16</td>
<td>310.67</td>
<td>624.25</td>
<td>797.31</td>
<td>260.97</td>
<td>140.54</td>
<td>2,369.89</td>
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<tr>
<td>4</td>
<td>o/w Budget (ABFA)</td>
<td>US$Mn</td>
<td>166.96</td>
<td>286.55</td>
<td>273.20</td>
<td>409.07</td>
<td>239.30</td>
<td>98.38</td>
<td>1,473.45</td>
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<tr>
<td>5</td>
<td>o/w Ghana Pet Funds</td>
<td>US$Mn</td>
<td>69.21</td>
<td>24.12</td>
<td>351.05</td>
<td>388.23</td>
<td>21.67</td>
<td>42.16</td>
<td>896.44</td>
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<tr>
<td>6</td>
<td>o/w Stabilisation (GSF )</td>
<td>US$Mn</td>
<td>54.81</td>
<td>16.88</td>
<td>245.73</td>
<td>271.76</td>
<td>15.17</td>
<td>29.51</td>
<td>633.87</td>
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<tr>
<td>7</td>
<td>o/w Heritage (GHF)</td>
<td>US$Mn</td>
<td>14.40</td>
<td>7.24</td>
<td>105.31</td>
<td>116.47</td>
<td>6.50</td>
<td>12.65</td>
<td>262.57</td>
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<tr>
<td>8</td>
<td><strong>TOTAL</strong></td>
<td>US$Mn</td>
<td>444.12</td>
<td>541.62</td>
<td>846.67</td>
<td>978.02</td>
<td>387.83</td>
<td>229.03</td>
<td>3,427.29</td>
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#### Yearly Analysis

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<tr>
<th>Year</th>
<th>% of GDP</th>
<th>% Dom Rev</th>
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<tbody>
<tr>
<td>2011</td>
<td>1.1</td>
<td>6.0</td>
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<tr>
<td>2012</td>
<td>1.3</td>
<td>6.6</td>
</tr>
<tr>
<td>2013</td>
<td>1.7</td>
<td>9.1</td>
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<tr>
<td>2014</td>
<td>2.5</td>
<td>12.3</td>
</tr>
<tr>
<td>2015</td>
<td>1.0</td>
<td>5.2</td>
</tr>
<tr>
<td>2016</td>
<td>0.4</td>
<td>2.2</td>
</tr>
<tr>
<td>2017</td>
<td>1.2</td>
<td>6.1</td>
</tr>
<tr>
<td>2018</td>
<td>1.3</td>
<td>6.4</td>
</tr>
</tbody>
</table>
1. Prior to 2017, Earmarked Funds were distributed according to their formula in their enabling acts. Earmarked Funds averaged 34% of tax revenue from 2013 to 2016 posing significant rigidities to the budget.

2. With effect from 2017 fiscal year, Earmarked Funds are distributed in accordance with Section 3 of the Earmarked Funds Capping and Realignment Act.

3. Budgetary allocation made in each year to Earmarked Funds and encumbered in each year by the Earmarked Funds is 25% of Tax Revenue.

4. The capped earmarked Funds of 25% of Tax Revenue is allocated to each earmarked funds according to a weight which shall be approved by parliament as part of the Annual Budget for each year.
5. The weight is guided by the allocation of revenue that Earmarked Fund would have normally received if a cap was not placed on those earmarked funds and the corresponding weight that would have applied to the Earmarked Fund.

6. Prior to the law, earmarked funds averaged 34.2% of tax revenue from 2013 to 2016.

7. In the 2017 fiscal year, Earmarked Funds constituted about 28.4% of tax revenue after the implementation of the law (with some restorations), freeing up a fiscal space of GHs4.6bn (2.3% of GDP), thereby reducing budget rigidities.

8. In the 2018 Budget, the application of the earmarked funds formula freed up about GHs3.7bn (1.5% of GDP) fiscal space, thereby, reducing budget rigidities.
Fiscal Indicators in the PFM Act (Section 16)

1. The non-oil primary balance or non-oil fiscal balance, as a percentage of gross domestic product

2. Any two of the following:
   i. Public debt as a percentage of Gross Domestic Product
   ii. Capital spending as a percentage of Total Expenditure
   iii. Revenue as a percentage of Gross Domestic Product
   iv. Wage bill as a percentage of Tax Revenue
## Performance of Fiscal Indicators

<table>
<thead>
<tr>
<th>Srn</th>
<th>Fiscal Indicator</th>
<th>2017 Target</th>
<th>2017 Prov</th>
<th>2018 Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The non-oil primary balance as a percentage of GDP</td>
<td>-1.0%</td>
<td>-0.6%</td>
<td>0.3%</td>
</tr>
<tr>
<td>2</td>
<td>non-oil fiscal balance as a percentage of GDP</td>
<td>-7.6%</td>
<td>-7.2%</td>
<td>-5.9%</td>
</tr>
<tr>
<td>3</td>
<td>Public debt as a percentage of GDP</td>
<td>73.1%</td>
<td>&lt;70%</td>
<td>NA</td>
</tr>
<tr>
<td>4</td>
<td>Capital spending as a percentage of Total Expenditure</td>
<td>11.5%</td>
<td>11.9%</td>
<td>11.1%</td>
</tr>
<tr>
<td>5</td>
<td>Revenue as a percentage of GDP</td>
<td>21.3%</td>
<td>20.0%</td>
<td>21.1%</td>
</tr>
<tr>
<td>6</td>
<td>Wage bill as a percentage of Tax Revenue</td>
<td>42.5%</td>
<td>45.4%</td>
<td>42.0%</td>
</tr>
</tbody>
</table>
Fiscal Rules Imposed by International Commitments

1. ECOWAS

   1. *Primary Convergence Criteria*
      
      i. Fiscal deficit as a percent of GDP $\leq 3\%$
      
      ii. Inflation $\leq 10\%$ ($\leq 5\%$ from 2019)
      
      iii. Central Bank financing as a percentage of previous year’s Tax Revenue $\leq 10\%$
      
      iv. Gross International Reserves $\geq 3$ months of import cover

   2. *Secondary Convergence Criteria*
      
      v. Nominal Exchange variation of $\pm 10\%$
      
      vi. Public Debt to GDP ratio $\leq 70\%$
Fiscal Rules Imposed by International Commitment

2. IMF (Performance Criteria: Ref Point is Dec 2017)

i. Primary fiscal balance
   • GHS1.3bn against a floor of GHS704mn

ii. Wage Bill
   • GHS14.4bn against a ceiling of GHS14.0bn

iii. Non-accumulation of new domestic arrears (ceiling; millions of cedis)
   • No arrears domestic arrears were accumulated

iv. Non-accumulation of external arrears
   • No external arrears were accumulated

v. Net change in the stock of arrears (ceiling, millions of Cedis)
   • Cleared GHS3.0bn against a floor of GHs3.2bn
Fiscal Rules Imposed by International Commitment

2. IMF (Performance Criteria)

vi. Gross financing of BoG to Government and SOEs
   • GHS15.38bn against a ceiling of 15.39bn

vii. Contracting or guaranteeing of new external non-concessional debt for projects (cumulative from the beginning of 2015)
   • US$2.0 bn and a ceiling of US$2.25bn
4. CONCLUSION
Conclusion

1. The institutional reforms, especially the passage of the PFM Act and the PRMA, among others, have strengthened macro-fiscal processes in Ghana.

2. The PFM Act is being amended to include a fiscal rule of a fiscal deficit ceiling of 5% of GDP to promote fiscal consolidation.

3. Forecasting functions/coordination as well as fiscal risk management are being properly streamlined to enhance the credibility of the budget.
THANK YOU