Logging off: Searching for new growth drivers for Solomon Islands*

By
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- Pacific Island Economies: Aiming for Sustainable Economic Development in the Midst of Growing Uncertainties
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*The views expressed in the paper and presentation are those of the authors and do not necessarily reflect the views and policies of the Asian Development Bank (ADB) or its Board of Governors or the governments they represent.
Research Questions

1. What is the impact of the decline in logging output on the economy of Solomon Islands?

2. What industry or sector can replace logging as a new engine of growth for Solomon Islands?

3. Can ADB’s MMFF be used to answer these questions?
Outline

- Introduction to Solomon Islands
- Motivation and Research Background
- Methodology
- Initial Findings
- Future work
- Policy Recommendations
Introduction to Solomon Islands

- Melanesian country in the South Pacific
- Population: 721,455 in 2019
- 2.7% pop’n growth rate (2009 – 2019)
- 74.4% of population live in rural areas
- 9 provinces and Honiara, capital city
- GDP per capita: $2,069 in 2022
- Low-income country (to graduate in 2024)
Economic structure, 2020 (%)

- Agriculture and Hunting, 16.6
- Forestry and logging, 11.4
- Fishing, 6.1
- Manufacturing, 9.7
- Construction, 4.8
- Real Estate, 6.1
- Public services, 13.3
- Wholesale & Retail Trade, 15.5
- Financial services, 3.0
- Transportation, 4.1
- Other Industry, 2.8
- Other Services, 6.6

Source: 2020 National Accounts, Solomon Islands National Statistics Office
Population and labor structure

% of population

- Students and children below 10; 327,612; 51%
- Other; 54,249; 8%
- Employer; 3,167; 1%
- Employed: Public; 17,617; 3%
- Employed: Private; 27,853; 4%
- Unpaid Worker; 42,712; 7%
- Own-account/Subsistence; 166,117; 26%

% of working age population

- Farming; 189,276; 61%
- Others; 90,052; 29%
- Fishing; 10,506; 3%
- Livestock; 6,562; 2%
- Forestry; 2,085; 1%
- Handicrafts; 2,971; 1%
- Missing; 10,262; 3%

Source: 2017 National Agriculture Census, Solomon Islands National Statistics Office
Logging output and sustainable yield

Source: Central Bank of Solomon Islands, ADB (1997), Authors’ estimates.
Log exports

Source: Central Bank of Solomon Islands, Authors’ estimates
Trade and current account balance

% of GDP


Source: International Monetary Fund, Central Bank of Solomon Islands, Authors’ estimates.
GDP per capita and GDP Growth

Source: International Monetary Fund, Solomon Islands National Statistics Office, Authors’ estimates.
Methodology

- Macroeconomic Monitoring and Forecasting Model
  - Developed by ADB’s Economic Research and Development Impact Department
  - Similar to Financial Programming and Policy (FPP) approach of IMF
  - Simple, excel-based framework for short-term forecasting and monitoring
  - Frameworks customized for each economy
  - Accommodates different approaches to forecasting
  - Mainly based on average growth rates of key variables
  - Provides consistency check across sectors (real, monetary, external)

- “Forecasts” are driven by story set by user
  - Need to identify key drivers of forecast
  - For Solomon Islands: logging output, government spending and investment
Correspondences Across Macroeconomic Accounts

REAL SECTOR
- National Accounts
  - Private consumption
  - General government consumption
  - Private investment
  - General government investment
  - Exports of goods and nonfactor services
  - Imports of goods and nonfactor services

EXTERNAL SECTOR
- Balance of Payments
  - CURRENT ACCOUNT
    - Exports of goods and nonfactor services
    - Imports of goods and nonfactor services
    - Factor services (net)
    - Transfers (net)
    - Official
    - Private
  - CAPITAL and FINANCIAL ACCOUNT
    - Direct investment
    - Medium/long-term capital (net)
    - Short-term capital (net)
    - Overall balance
    - Change in net foreign assets
    - Change in net international reserves

GENERAL GOVERNMENT*
- Revenues
  - Grants
- Expenditures
  - Current Capital
  - Overall balance
  - Financing
    - Domestic financing (net)
    - Banking system
    - Nonbanking sector
    - External financing (net)

MONETARY SECTOR
- Monetary Authorities
  - Net foreign assets
  - Net domestic assets:
    - Net credit to general govt.
    - Credit to private sector
    - Other items (net)
  - Reserve money (monetary base):
    - Includes currency in circulation as well as banks’ reserves
- Deposit Money Banks
  - Net foreign assets
  - Banks’ reserves
  - Net domestic assets:
    - Net credit to general govt.
    - Credit to private sector
    - Other items (net)
  - Liabilities to monetary authorities
  - Private sector deposits

* In this format, changes in state enterprise consumption or investment would appear as part of private consumption or investment.
Methodology

1. Set-up the baseline
   • Log output growth: seasonally-adjusted forecast by MS Excel based on quarterly data from 2010 to 2022
   • GDP growth: mostly based on 3-year average growth of each subsector (assumptions for 2023 and 2024 mainly based on *Asian Development Outlook 2023*)

2. Create different scenarios
   • Scenario 1: 250,000 cubic meters by 2033
   • Scenario 2: -25% annual change in log output
   • Scenario 3: average of 250,000 cubic meters from 2023 - 2033

3. Find new industries as alternative growth drivers
Alternative growth engines

• CROPS: Crop production and livestock
  • Harvest only “half of the expected attainable yield”
  • Increase production for Pacific Games, export in future
  • Increase in exports include expansion to other crops
  • Export of crops in 2024 is double of the level in 2022, then grow by 15% annually until 2033

• FISH: Fisheries and marine resources
  • 25,000 to 30,000 metric tons (mt) processed in Noro vs 90,000 mt potential harvest
  • Fish catch increase by 50% in 2023, grow by 20% until 2027, then by 10% until 2033
Alternative growth engines

• TOURISM
  • 100,000 arrivals per year by 2035 (Tourism Recovery Plan 2021–2030)
  • Expand cruise tourism and agritourism
  • Visitor arrivals reach 2019 level in 2023 (29,000), then increase by 11% annually until 2035
Alternative growth engines

**Figure 19: Solomon Islands Exports of Fish and Crops**

- Fish
- Palm oil and kernels
- Copra and coconut oil
- Cocoa
- Fish (% of GDP)
- Crops (% of GDP)

GDP = gross domestic product.

**Figure 20: Solomon Islands Tourism Arrivals and Receipts**

- Visitor arrivals by air
- Visitor arrivals by sea
- Tourism receipts

GDP = gross domestic product.
### Initial Findings

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</thead>
<tbody>
<tr>
<td>Log output (thousand m3, avg.)</td>
<td>2,270</td>
<td>1,988</td>
<td>1,149</td>
<td>669</td>
<td>418</td>
<td>250</td>
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<tr>
<td>Change in log output (% avg.)</td>
<td>11.0</td>
<td>-15.7</td>
<td>-7.5</td>
<td>-15.5</td>
<td><strong>-25.0</strong></td>
<td>-36.6</td>
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<tr>
<td>Log exports ($ million, avg.)</td>
<td>269</td>
<td>219</td>
<td>142</td>
<td>82</td>
<td>51</td>
<td>31</td>
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<tr>
<td>% of exports</td>
<td>59.4</td>
<td>55.4</td>
<td>38.7</td>
<td>26.6</td>
<td>18.1</td>
<td>11.7</td>
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<tr>
<td>Real GDP growth rate (% avg.)</td>
<td>4.1</td>
<td>-2.7</td>
<td>1.9</td>
<td>1.6</td>
<td>1.5</td>
<td>1.3</td>
</tr>
<tr>
<td>Nominal GDP growth rate (% avg.)</td>
<td>7.4</td>
<td>-0.1</td>
<td>2.6</td>
<td>2.2</td>
<td>1.9</td>
<td>1.7</td>
</tr>
<tr>
<td>GDP (US$ million eop)</td>
<td>1,620</td>
<td>1,616</td>
<td>2,138</td>
<td>2,044</td>
<td>1,985</td>
<td>1,947</td>
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<td>GDP per capita, current ($ eop)</td>
<td>2,245</td>
<td>2,068</td>
<td>2,041</td>
<td>1,951</td>
<td>1,895</td>
<td>1,858</td>
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<td>GDP per capita, constant ($ eop)</td>
<td>1,821</td>
<td>1,551</td>
<td>1,426</td>
<td>1,383</td>
<td>1,356</td>
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<tr>
<td>Inflation (% avg.)</td>
<td>3.0</td>
<td>2.8</td>
<td>3.3</td>
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<tr>
<td>Goods and services balance (% of GDP, avg.)</td>
<td>9</td>
<td>-14.3</td>
<td>-18.3</td>
<td>-22.3</td>
<td>-24.6</td>
<td>-26.3</td>
</tr>
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<td>Current account balance (% of GDP, avg.)</td>
<td><strong>-4.5</strong></td>
<td>-6.7</td>
<td>-8.5</td>
<td>-12.0</td>
<td>-14.1</td>
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avg = average, eop = end of period, m3 = cubic meters.

Source: Authors’ estimates
## Searching for alternative growth engines

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<td>Crops and livestock exports (% of GDP)</td>
<td>4.7</td>
<td>3.5</td>
<td>2.2</td>
<td>8.6</td>
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<td>Fish exports (% of GDP)</td>
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<td>3.0</td>
<td>8.6</td>
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<td>Tourism receipts (% of GDP)</td>
<td>6.8</td>
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avg = average, eop = end of period, m3 = cubic meters.
Source: Authors’ estimates
Results: GDP and GDP per capita

GDP = gross domestic product.
Source: Authors’ estimates
Results: Trade and current account balance

Source: International Monetary Fund, Central Bank of Solomon Islands, Authors’ estimates.
Initial Findings

1. What is the impact of the decline in logging output on the economy of Solomon Islands?
   ➢ Slower growth, higher trade and current account deficits

2. What industry or sector can replace logging as a new engine of growth for Solomon Islands?
   ➢ No single industry can replace logging

3. Can ADB’s MMFF be used to answer these questions?
   ➢ Yes, but...
Future work

• Analyze and improve links between tourism and GDP
• Explore impact of seasonal worker schemes
• Explore impact of other sectors
• Incorporate impact of other policy reforms
Policy recommendations

• Explore more sustainable options to benefit from natural resources;
• Invest on integrated, sustainable, and multi-sectoral or multi-use developments;
• Involve local governments, communities, and the private sector in the development from conceptualization to implementation;
• Focus on long-term projects that can benefit multiple generations by ensuring developments and projects are climate-proofed; and
• Unleash the potentials of digital connectivity in searching for partners, investors, and customers.
Tagio Tumas!