

FINANCIAL ANALYSIS

A. Introduction

1. **Project summary.** The project will develop and operate a new fiber-optic submarine cable system (SCS) connecting Samoa (Upolu and Savai'i) via Fiji to the existing Southern Cross Cable Network between Australia and the United States, financed by the Asian Development Bank (ADB), the World Bank, the governments of Australia and Samoa, and equity investors. The proposed SCS will provide cost-effective broadband connectivity, expand business opportunities, and boost opportunities for inclusive growth. Better connectivity will also enable broadband solutions to overcome service delivery constraints in key social sectors such as education and health. The project plans to support investments in e-health solutions by establishing an integrated national health information system and corresponding applications to take advantage of the improved information and communication technology (ICT) infrastructure. The project will strengthen the Office of the Regulator (OOTR) to ensure that access and cost benefits are passed on to consumers. The Samoa Submarine Cable Company (SSCC) will be established to provide transparent wholesale bandwidth access to telecommunication providers in Samoa.

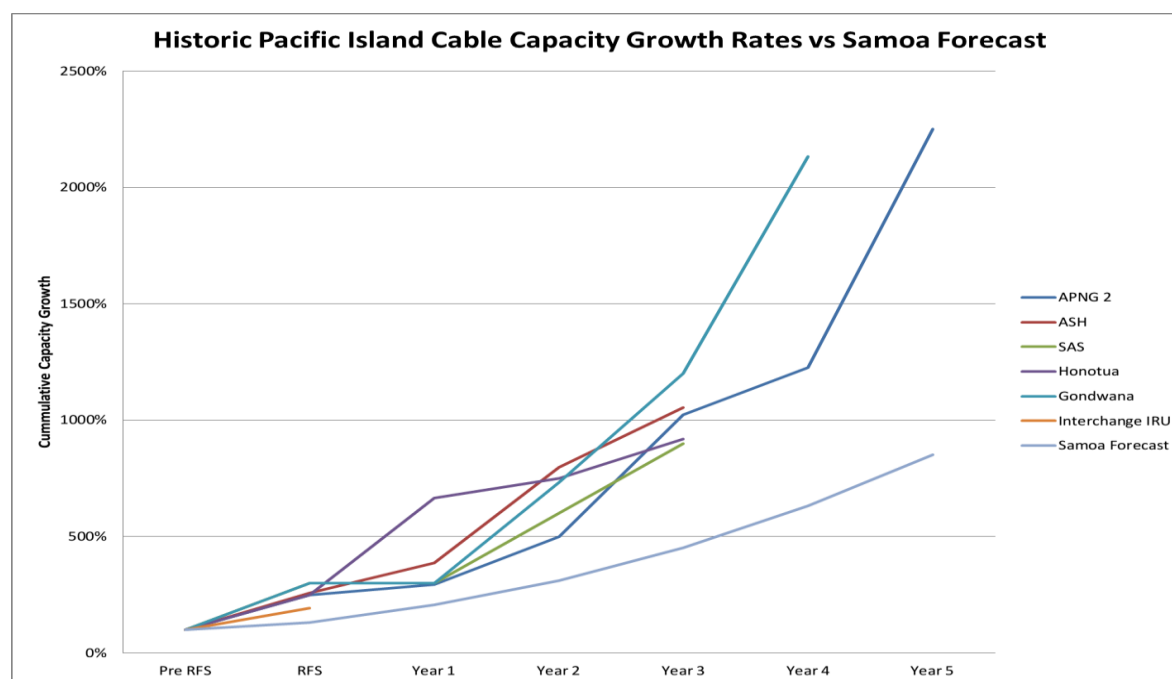
2. **Demand projection.** The analysis employs a top-down methodology by benchmarking other broadband connectivity projects in the Pacific region that roughly match Samoa's current demand distribution across its telecommunication services. Competition with the existing American Samoa–Hawaii (ASH) fiber-optic cable, and its potential future upgrade, is taken into account. Demand is forecast to grow by 60% in the first year, below the region's average adoption rates. This growth is seen to fall to 25% after the first 5 years (based on 30% capacity) of cable service, and then decline steadily over the next 10 years to 1%, which is sustained thereafter. The average annual capacity growth rate of 35% over 25 years is at the lower end of all available Pacific-based benchmark data (Figure 1). Future growth may be even higher because of an exponential increase in mobile internet use, particularly in developing countries, where annual growth rates of 50% are being recorded and 2.9 billion new smartphone users are expected by 2020.¹ On the same basis, subscriber growth has been estimated to peak at 35,000 early adopters after 3 years as new services at lower cost are introduced after the SCS is ready for service. Subscriber growth will slow steadily from 20% to 1% in the long term.

B. Financial Analysis

3. **Pricing.** Table 1 outlines the graduated pricing (price per megabits per second) that will ensure SCS' competitiveness against alternative services, its financial viability over the long-term and a low wholesale price to benefit end consumers. The pricing structure, agreed with the government for the first 7 years of operations, is set at a level that covers operations and maintenance costs, including fixed costs for cable maintenance contracts, landing station operations and general operations of SSCC as well as variable cost provisions for unplanned cable or station repairs and demand driven internet transit costs. Given this pricing does not cover full network costs (including capital costs), a price subsidy, equivalent to the principal repayments of the debt to the government will be paid to the SSCC annually to maintain the assumed minimum wholesale prices. Such reduced wholesale prices further benefit the project's objective to increase affordable access to broadband services.

¹ GSMA, *The Mobile Economy 2015*, GSMA Intelligence, 2015.

Figure 1: Demand Growth over Time



APNG-2 = submarine cable linking Papua New Guinea and Australia (RFS 2006); ASH = American Samoa–Hawaii Cable (2009); Gondwana = linking New Caledonia and Australia (2008); Honotua = linking French Polynesia via Tahiti to Hawaii, USA (2010); Interchange IRU = linking Vanuatu and Fiji (2013); SAS = Samoa–American Samoa Cable (2009); IRU = indefeasible right of use; Samoa Forecast = ready for service for the proposed Samoa Fiji cable (presumed 2017). For details of the referenced regional cables: <http://www.submarinecablemap.com/>

Source: Asian Development Bank and World Bank estimates.

Table 1: Proposed Pricing as Demand Increases

	\$								
Usage in Mbps	2018	2019	2020	2021	2022	2023	2024	2025	
50	298	298	298	283	252	211	178	149	
100	253	253	253	240	214	180	151	127	
200	215	215	215	204	182	153	128	108	
300	183	183	183	174	155	130	109	92	
400	155	155	155	148	131	110	93	78	
500	132	132	132	125	112	94	79	66	
1,000	112	112	112	107	95	80	67	56	
2,000	95	95	95	91	81	68	57	48	
3,000	81	81	81	77	69	58	48	41	
4,000	69	69	69	66	58	49	41	35	
10,000	59	59	59	56	50	42	35	29	
20,000	50	50	50	47	42	35	30	25	
40,000	42	42	42	40	36	30	25	21	
Annual Red'n	0%	0%	5%	11%	16%	16%	16%	16%	16%

Mbps = megabits per second, Red'n = reduction.

Source: Samoa Submarine Cable Company estimates.

4. **Financial sustainability.** The financial sustainability of the SSCC's operations was assessed over the next 25 years, corresponding to the cable's minimum life. Project outputs and onlending terms applicable to the SSCC's operation, and the graduated pricing and demand projections were considered in the analysis. The financial inflows were estimated from the revenue accruing to the SSCC, which is calculated based on demand for international bandwidth multiplied by the SSCC's proposed wholesale tariffs as outlined above, assuming [95%] collection efficiency. SSCC will maintain positive net free cash flow and cash balance after incorporating the price subsidy, while net earnings turn positive in year 18 (Table 4). Return on equity is capped at a maximum of 10% based on respective equity contributions and payable only when the SSCC maintains to be profitable. Dividend is declared by the board, which ensures that payouts are not detrimental to the long-term sustainability of the SSCC. As such, payment of dividends has not been factored into the analysis. Protective measures include covenants in the subsidiary agreement with the SSCC which gives the government the right to endorse dividends. Effectively, the price subsidy to be paid by the government to SSCC will ensure its financial sustainability until such a time that the market can absorb increased prices to be financially viable.

C. Financial Management Assessment

10. The World Bank undertook the financial management assessment for the project and ADB will rely on its findings.² The World Bank rated the overall inherent risk as substantial and overall control and financial management risk as moderate. The key risk relates to the SSCC's capacity, as a start-up company, to meet the financial management requirements of ADB-financed projects. To mitigate this, the Ministry of Finance (MOF)—familiar with ADB financial management requirements given its role as executing agency for all ADB projects—will be responsible for the overall financial management of the project. A full-time qualified project accountant will be recruited to the project management unit to monitor all project-related financial activities. MOF will submit an independent appraisal of the proposed structure of the SSCC. Once the latter is fully operational, the World Bank will conduct a fiduciary assessment (financial management and procurement) prior to signing the project agreement with the SSCC. ADB will rely on this assessment.

11. Grant proceeds will be disbursed in accordance with ADB's Loan Disbursement Handbook (2015, as amended from time to time). The direct payment procedure will be used for both the SCS and health information system. MOF will maintain separate project accounts compliant with accounting principles and practices, or the national equivalent thereof, acceptable to ADB. It will also prepare annual financial statements to be audited annually by independent auditors, and furnish audited accounts to ADB within 6 months after the end of the related fiscal year. Public disclosure of project financial statements, including the audited report, will be guided by ADB's Public Communications Policy (2011).

² World Bank. 2015. *Proposed Grant to the Independent State of Samoa in Support of the Pacific Regional Connectivity Program Samoa Connectivity Project*. Washington, DC.

Table 4: Samoa Submarine Cable Company Financial Projection

Year	Capital Expenditure	Operating Inflows	Operating Outflows	Operating Cash Adjustments (Depreciation)	Net Free Cash Flow	Subsidy (Debt Service, Finance)	Net Earnings	Cash Balance (Net Earnings less Depreciation, Debt Service)
1	(14,060,000)	10,289,000	(2,109,000)	0	(5,880,000)	5,880,000	0	0
2	(28,120,000)	4,218,000	(4,218,000)	0	(28,120,000)	28,120,000	0	0
3	0	803,572	(3,536,204)	2,812,000	79,368	0	(2,732,632)	79,368
4	0	2,695,234	(4,350,587)	2,812,000	1,156,647	(510,000)	(2,165,353)	646,647
5	0	2,712,232	(4,338,550)	2,812,000	1,185,682	(510,000)	(2,136,318)	675,682
6	0	2,651,420	(4,418,885)	2,812,000	1,044,535	(510,000)	(2,277,465)	534,535
7	0	2,970,220	(4,454,797)	2,812,000	1,327,424	(510,000)	(1,994,576)	817,424
8	0	3,042,086	(4,506,077)	2,812,000	1,348,009	(510,000)	(1,973,991)	838,009
9	0	2,998,730	(4,558,575)	2,812,000	1,252,155	(484,500)	(2,044,345)	767,655
10	0	3,244,823	(4,613,864)	2,812,000	1,442,959	(459,000)	(1,828,041)	983,959
11	0	3,412,540	(4,679,463)	2,812,000	1,545,076	(433,500)	(1,700,424)	1,111,576
12	0	3,391,361	(4,747,175)	2,812,000	1,456,186	(408,000)	(1,763,814)	1,048,186
13	0	3,536,588	(4,814,270)	2,812,000	1,534,318	(382,500)	(1,660,182)	1,151,818
14	0	3,585,721	(4,888,010)	2,812,000	1,509,711	(357,000)	(1,659,289)	1,152,711
15	0	3,542,241	(4,965,304)	2,812,000	1,388,937	(331,500)	(1,754,563)	1,057,437
16	0	3,524,879	(5,044,391)	2,812,000	1,292,488	(306,000)	(1,825,512)	986,488
17	0	3,731,407	(5,127,823)	2,812,000	1,415,584	(280,500)	(1,676,916)	1,135,084
18	0	3,915,827	(2,746,075)	0	1,169,752	(255,000)	914,752	914,752
19	0	3,885,960	(2,814,743)	0	1,071,218	(229,500)	841,718	841,718
20	0	4,191,061	(2,973,941)	0	1,217,120	(204,000)	1,013,120	1,013,120
21	0	4,189,684	(3,058,655)	0	1,131,029	(178,500)	952,529	952,529
22	0	4,421,793	(3,205,475)	0	1,216,318	(153,000)	1,063,318	1,063,318
23	0	4,535,817	(3,327,532)	0	1,208,284	(127,500)	1,080,784	1,080,784
24	0	4,888,668	(3,516,242)	0	1,372,426	(102,000)	1,270,426	1,270,426
25	0	5,144,227	(3,686,252)	0	1,457,975	(76,500)	1,381,475	1,381,475
26	0	5,410,805	(3,862,098)	0	1,548,707	(51,000)	1,497,707	1,497,707
27	0	5,921,611	(4,108,538)	0	1,813,073	(25,500)	1,787,573	1,787,573

Source: Asian Development Bank estimates.