ACCA THE GLOBAL BODY FOR PROFESSIONAL ACCOUNTANTS

INTERNATIONAL PROJECT APPRAISAL - PART 2

RELATED LINKS

International project appraisal - part 1

The first part of this article highlighted the importance of international project appraisal within the Paper P4 syllabus. There was also a demonstration as to how to tackle a Section B, 25-mark **question** using material from your Paper P4 studies.

It is just as important to prepare for a Section A 50-mark test on international project appraisal. There will be a large section of text containing far more information than a Section B type **question**. However, this is compensated by a greater mark allocation and, hence, more time to produce an acceptable answer. As shown in the previous article, students need to adopt a methodical approach to ensure they are rewarded with high marks.

Let us now return to Penn Co and consider another international **investment** opportunity.

h6 Home Country

PENN CO

Home Currency

Penn Co is a successful company based in the European country, Ayjai. The local currency is the dollar ($), inflation has been stable at 2.75% pa and income tax is charged on profits, in the year in which they are earned, at a rate of 25% pa. The company is listed on several major stock exchanges as it has operations all over the globe. Its market capitalisation is $655m. The company has bonds with varying maturities trading at $145m. (Vd) (Ve)

- Tax paid - no time delay

Penn's nominal cost of capital has been stable at 10%. However, Penn Co uses a nominal risk-adjusted rate of 12% when carrying out projects in developing markets. - CoWACC

- Risk Adjusted WACC

Penn Co's main operation is constructing and laying of train tracks and tramlines. Due to its position as the market leader, its primary consumers are governments. Penn Co is renowned for its ethical business style, and ability to complete long and complex contracts within schedule.

Core business activity

Penn Co sets up wholly owned subsidiary companies in each country where it has business interests, including in Nuruk. - Fx Operations

Fx = Euro

NURUK

Nuruk is a fully-fledged member of the euro zone and shares a border with Ayjai. Its currency is the euro (€). Nuruk is a well-developed country and, unlike most of the euro zone, its economy is growing at a **healthy** rate. - good news

Lower tax rate and one year delay

The primary reason for Nuruk's current economic state is its low level of taxation. Income tax is charged at 20% pa and can be paid up to one year after profits are earned. In addition, the Nurukian government reacted to the global recession with a substantial fiscal expenditure plan, leading to the enhancement of the national railway network.

- govt contract.

Since 2009, the government have invested in replacing and upgrading the state-owned national railway network to allow the lines to run the new 'SuperFast2 (SPF2)' trains. The government committed to a 10-year plan to ensure SPF2 trains could operate on lines nationwide.

Added to Ve

Penn Co, via its Nurukian subsidiary, has benefited from the government **investment** in the railway network. The subsidiary was granted preferred supplier status by the government in 2009. It has been the primary, but not the exclusive, business partner to the government. To date, Penn Co have supplied the entire specialist train track required to run the SPF2 and have consulted and advised the various construction companies, contracted by the government, on the laying and testing process. Currently, all stakeholders are content with the progress made.

- Good Income

Other Competitors

NPV of $T_0 - T_6$

FINAL PHASE

The final phase of the project will take five years to complete. The track is to be laid on a national heritage site, the Linus mountain range, by which there are many small villages.

- environmental concerns

The government has been scrutinised by both the villagers and environmental protest groups, concerned

To

start date to 1 January 2014 in order to hold a public enquiry and hear the concerns of the stakeholders. They decided that environmental considerations should be prioritised when laying the SPF2 rail line and it should be considered a 'special case'. The government accepted these findings and decided that Penn Co would be the most suited company to carry out the upgrades due to its ethical approach.

Preferred Supplier/Contractor

Penn Co is required to supply, fit and test the line via its subsidiary. The government will closely monitor the project due to the outcome of the enquiry and, in addition, has allocated extra resources to this phase, as it understands the task of laying the new rail-line will be onerous.

More Income

Penn Co wishes to consider the financial and other implications of the project before making a final decision. The subsidiary will need to buy specialist machinery at the commencement of the project for €1,000m. The company can claim tax allowable depreciation (TAD) on only €250m of this investment, claimed on a straight-line basis over the life of the project. [T1 – T5]

CAPEX

Penn Co's treasury department believes at this financial investment will not alter the company's gearing level nor will the project affect its business risk profile. However, the necessary amount of funds to purchase specialist machinery will have to be raised in Ayjain dollars via the financial markets.

∴ Penn's Co WACC can be used.

Translation Risk

One key stipulation of the public enquiry was to specify how many metres of line could be laid in each calendar year:

Year ending 31 December	Metres
2014	5,700
2015	6,500
2016	10,900
2017	8,100
2018	6,300

Link with Price and Variable Cost per metre.

The government will pay Penn Co, €55,000 per metre at the end of 2014, increasing by 3% pa. Material and local labour costs are expected to be €23,000 per metre at the end of 2014, with expected increases at a rate of 5% pa thereafter. Fixed operating costs will increase by €40m at the end of 2014 and this amount will rise by 6% pa.

Standard P4 presentation.

Penn Co has a standard policy that all its foreign subsidiaries must make a fixed annual royalty payment of $15,000 per metre back to the holding company at the end of each respective year. This is a fair arms length value to cover the investment made by Penn Co to develop the train track technology.

Cost in Nuruk and Income in Ayjai.

Working capital funds will be needed from 1 January 2014. The initial amount can be estimated to be 10% of the revenue earned at the end of year 2014. Each year, this will need to be adjusted by €10 for each €100 change in annual sales revenue. Working capital will be recovered in full on 31 December 2018. On the same day, the Nurukian government has guaranteed to purchase from Penn Co the specialist machinery for a nominal value of €500m. – NRV

WC included as part of the cash flows

Economic forecasters believe that the mid-point spot exchange rate on 1 January 2014 will be €0.7810/$. The Ayjain Central Bank expects the dollar to devalue at a rate of 5% pa. The current risk free rate is 4.5% pa. The estimated standard deviation of the future free cash flows is 30%. BSOP

S0

€xxx/$ x 95%

A bilateral tax treaty exists between the countries of Ayjai and Nuruk – hence, taxable profits earned in Nuruk will be liable to the differential income tax rate on company profits that applies between the two countries. The Ayjain government expects this to be paid in the same year as the taxable profits are earned.

Double tax.

OFFER FROM ELDERS INC

Competitor

Elders Inc is the largest construction company based in Nuruk. Since 2009, it has laid and tested a substantial amount of the new SPF2 train line in Nuruk. It has worked closely with Penn Co as it supplied this train track.

Partners

upset?

The board of directors (BoD) were bemused that the Nurukian government did not offer them the SPF2 contract for the final phase. They believe that they have gone through the learning curve and could do the work on an efficient basis.

Pe in BSOP

The BoD decided to approach Penn Co with an offer of $1,200m to purchase the contract from them in two years time (31 December 2015). Penn Co's lawyers have advised them that the Nurukian government has not expressly precluded Penn Co from exiting the contract early, but advise Penn Co to consider their ethical stance should they decide to do so.

t=2 for BSOP

ALTERNATIVE SOURCES OF FINANCE

CAPEX
Initial WC } 1/1/14

The chief financial officer (CFO) of Penn Co has concerns about the substantial initial investment required

CFO and are suggesting two alternative methods of raising the funds.

- €1,000m five-year 6.25% syndicated bank loan – Penn Co's advisers believe that a number of Nurukian banks would be willing to participate in such a transaction. They also believe that they may be able to persuade the Nuruk government to provide a subsidised interest rate of 4% pa on an element of this loan.
- To raise the required funds using Islamic finance in the form of sukuk bonds. The advisers feel that the project's characteristics are within the Sharia law regulations and this would give Penn Co access to low cost finance.

APV?

Comply with Sharia guidance?

Requirement
Prepare a report to the Board of Directors (BoD) of Penn Co that:

a) Provides a financial assessment of the final phase of the Nuruk train line project as at 1 January 2014. All cash flows are to be presented in nominal terms and the project's dollar free cash flows are to be discounted at the appropriate nominal cost of capital. **Ignore** the offer from Elders Inc and the alternative finance options. *(22 marks)*

b) A discussion of the assumptions made in arriving at the financial assessment.
(5 marks)

c) An assessment of the offer made by Elders Inc to purchase the contract from Penn Co in two years time. This should include an estimate of the financial value of the real option. *(9 marks)*

d) A discussion of the two alternative finance options specifically addressing:

(i) If Penn Co raised the funds from the banks based in Nuruk, how this would affect the financial assessment of the project.

No further calculations are required.
(4 marks)

(ii) The key differences that Penn Co should be aware of between raising money via the Islamic finance option as opposed to traditional forms of debt capital. *(6 marks)*

Professional marks awarded for format, structure and presentation of the report.
(4 marks)

(50 Marks)

Students will not be surprised to see a scenario-based question 1 containing a vast amount of information. Several areas of the syllabus will be tested, including international project appraisal. Before focusing on the primary topic, I wish to demonstrate my step-by-step approach to answering question 1.

UNDERSTAND THE REQUIREMENTS AND ALLOCATE YOUR TIME

This question represents 50% of the exam – therefore, the answer should be completed in 90 minutes. However, the requirements of the question should be understood. 'Topic recognition' as I call it entails identifying which part of the syllabus is being targeted by each requirement. Simultaneously, I will allocate my time based upon the standard approach of 1.8 minutes per mark.

a) Keywords 'financial assessment', 'project's dollar nominal cash flows' and 'discounted' would trigger my thoughts. I have to prepare a schedule of free cash flows and compute the net present value (NPV). 22 marks would indicate a time allotment of 40 minutes. However, there are four professional marks for structure and presentation, which I can spread across the requirements. Revised time allocation – 45 minutes.

b) 'Assumptions' relating to the financial assessment – lots of scope to score marks here within nine minutes.

c) 'Real option' takes my thought process directly to the Black-Scholes Option Pricing model (BSOP). I have to compute the value of this PUT option and add the relevant discussion points. Allocate 17 minutes.

d) The topic under scrutiny here appears to be two different forms of debt finance. However, the requirements need to be interpreted very carefully.

(i) How raising loan finance will affect the project appraisal. My initial thoughts are to explain the Adjusted Present Value (APV) appraisal method. (8 minutes)

(ii) Islamic finance – I need to apply my knowledge of Islamic finance (sukuk bonds) to answer this final requirement. (11 minutes)

ANSWER FORMAT

The question has clearly stated that the answer should be presented in a report format. The best way to do this is have appendices showing the computational elements, followed by the discussion parts in the main body of the headed report. In this case, I would layout my answer:

- Appendix 1 – NPV and relevant workings