Topic 11 Solutions

Note: All the questions for this topic are from the text (Chapter 21) and the exam question from 2021.

1. Discuss the twin objectives of taxation.

There are two basic objectives of taxation that are necessary to discuss to help frame our thinking about the international tax environment: tax neutrality and tax equity.

Tax neutrality has its foundations in the principles of economic efficiency and equity. Tax neutrality is determined by three criteria. *Capital-export neutrality* is the criterion that an ideal tax should be effective in raising revenue for the government and not have any negative effects on the economic decision making process of the taxpayer. That is, a good tax is one that is efficient in raising tax revenue for the government and does not prevent economic resources from being allocated to their most appropriate use no matter where in the world the highest rate of return can be earned. A second neutrality criterion is *national neutrality*. That is, regardless of where in the world taxable income is earned it is taxed in the same manner by the taxpayer's national tax authority. In theory, national tax neutrality is a commendable objective, as it is based on the principle of equality. The third neutrality criterion is *capital-import neutrality*. This criterion implies that the tax burden placed on the foreign subsidiary of a MNC by the host country should be the same regardless in which country the MNC is incorporated and the same as that placed on domestic firms.

Tax equity is the principle that all similarly situated taxpayers should participate in the cost of operating the government according to the same rules. This means that regardless in which country an affiliate of a MNC earns taxable income, the same tax rate and tax due date apply.

2. Compare and contrast the three basic types of taxation that governments levy within their tax jurisdiction.

There are three basic types of taxation that national governments throughout the world use in generating tax revenue: income tax, withholding tax, and value-added tax. Many countries in the world obtain a significant portion of their tax revenue from imposing an *income tax* on personal and corporate income. An income tax is a *direct tax*, that is, one that is paid directly by the taxpayer on whom it is levied. The tax is levied on *active income*, that is, income that results from production by the firm or individual or from services that have been provided. A *withholding tax* is a tax levied on passive income earned by an individual or corporation of one country within the tax jurisdiction of another country. *Passive income* includes dividends and interest income, and income from royalties, patents or copyrights paid to the taxpayer. A withholding tax is an *indirect tax*, that is, a tax borne by a taxpayer that did not directly generate the income that serves as the source of the passive income. The tax is withheld from payments the corporation makes to the taxpayer and turned over to the local tax authority. A *value-added tax (VAT)* is an indirect national tax charged on the sales price of a service or consumption good as it moves through the various stages of production and/or service. As such, a VAT is a sales tax borne by the final consumer.

3. Show how double taxation on a taxpayer may result if all countries were to tax the worldwide income of their residents and the income earned within their territorial boundaries.

There are two fundamental types of tax jurisdiction: the worldwide and the territorial.
The *worldwide* method of declaring a national tax jurisdiction is to tax national residents of the country on their worldwide income no matter in which country it is earned. The *territorial* method of declaring a tax jurisdiction is to tax all income earned within the country by any taxpayer, domestic or foreign. Hence, regardless of the nationality of a taxpayer, if the income is earned within the territorial boundary of a country it is taxed by that country.

If a MNC was a resident of a country that taxed worldwide income, the foreign-source income of its foreign affiliates would be taxed in the parent country. If the host country also taxes the income of the affiliate earned within its territorial borders, the foreign affiliate would pay taxes on the same income both in the host country and in the parent country. To avoid this "evil," some mechanism needs to be established to prevent double taxation.

4. What methods do taxing authorities use to eliminate or mitigate the evil of double taxation?

The typical approach to avoiding double taxation is for a nation not to tax foreign-source income of its national residents. An alternative method, and the one the U.S. follows, is to grant to the parent firm foreign tax credits against U.S. taxes for taxes paid to foreign tax authorities on foreign-source income.

5. How might a MNC use transfer pricing strategies? How do import duties affect transfer pricing policies?

A MNC might use transfer pricing strategies for two basic purposes: income tax liability reduction or funds repositioning. If the tax rate in the country of the selling affiliate is less than the tax rate in the buying affiliate country, a high markup policy on sales will leave little taxable income in the buying affiliate country to be taxed at the higher rate. Even if the tax rate in the buying affiliate country is not more than that in the selling affiliate country, a high markup policy will leave less funds to be removed from the buying affiliate country. In general, import duties work in the opposite direction from income taxes. For example, a high markup policy will decrease the income taxes due in the buying affiliate country, but increase the import duty due in that country. Generally, the income tax is more important in comparison to the import duty in its after-tax effect on consolidated net income.

6. What are the various means the taxing authority of a country might use to determine if a transfer price is *reasonable*?

The U.S. and many other countries require the transfer price to be consistent with arm's length pricing, i.e., be a price that an unrelated party would pay for the same good or service. The taxing authority can arbitrarily set the transfer price if it believes that transfer pricing schemes are being used to evade taxes or that taxable income is not being clearly reflected. There are three general methods to establish arm's length pricing. One method is to use a *comparable uncontrolled price* at which the good or service would be priced between unrelated parties. A second method is the *resale price approach*; that is, reduce the price at which the good is resold by an amount sufficient to cover overhead costs and a reasonable profit for the selling affiliate. The third method is the *cost-plus* approach, where an appropriate profit is added to the cost of the manufacturing affiliate.

7. Discuss how a MNC might attempt to repatriate blocked funds from a host country.

There are several methods a parent firm might use to repatriate profits from an affiliate in a host country that is blocking funds. Some of these measures should be enacted early on as a guard against future funds blockage. One is to establish a regular dividend policy that the host country becomes used to and expects. This assumes, however, the host country will let a reasonable amount of funds be repatriated. If this is not the case, the parent firm might attempt to use a high markup policy transfer pricing scheme. Since host countries are aware of transfer pricing strategies, a large change in the transfer price is likely not to go unquestioned by the host country. Thus, the parent firm should establish early on recognition of, and payment for, specific services that are being provided by the affiliate in addition to payment at an arm's length price for the physical goods. For example, the parent firm might charge for a share of worldwide advertising, technical training of employees of the affiliate, appropriate overhead charges, or a royalty or licensing fee for use of well-recognized brand names, technology, or patents. The host country might accept these charges as reasonable, whereas a large transfer price that incorporates all charges into a single price might be questioned as unreasonably large. Additionally, the parent firm can create exports, by having the affiliate charged in the blocked currency for goods and services for which the parent would typically pay, or through direct negotiation appeal to the host country for more reasonable treatment, if it is in an important industry to the host country.

8. Exam Question from 2021 **(*)**

(i) To kick start its economy, Country X is offering subsidized loans to Australian companies willing to set up operations there. The loan is $25 million at 3% when the market interest rate for such an investment is 8%. The loan is to be paid off in equal annual instalments over a five-year period.

(a) What is the before tax value of this interest subsidy?

		Principal*0.05	1/(1.08^year)	
Year	Principal	Interest savings	Present Value factor	PV
1	25,000,000	1,250,000	0.9259	1,157,407
2	20,000,000	1,000,000	0.8573	857,339
3	15,000,000	750,000	0.7938	595,374
4	10,000,000	500,000	0.7350	367,515
5	5,000,000	250,000	0.6806	170,146
			Total Subsidy	3,147,781

(b) The projected before-tax income from the plant in Country X is $1 million annually with the first set of cashflows arriving at the end of Year 1. The corporate tax rate in Country X is 25% and it also has a 20% dividend withholding tax. Country X, confers a (corporate) tax holiday on the plant's income for the first five years. If the Australian firm remits all the dividends that it receives back to Australia, how much is the (corporate) tax holiday, in the form of tax credits, worth to the firm?

The Australian corporate tax rate is 30%. Country X's tax rules does not allow for a tax holiday on dividends.

		No Tax Holiday		Tax Holiday
Profit before tax		1,000,000		1,000,000
Tax (25%)	1m * 25%	750,000		1,000,000
Dividend	1m - 250K	750,000		1,000,000
withholding tax	750K * 20%	150,000		200,000
Dividend to parent	750K - 150K	600,000		800,000
		Australia		
Grossed-up amount	1M	1,000,000		1,000,000
Tax owed	1M * 30%	300,000		300,000
Direct Tax Credits	Div. withholding tax	150,000		200,000
Indirect FTCs	Corporate tax	250,000		-
Net Tax payable	Australian tax - FTCs	- 100,000		100,000
Profit after tax		600,000		700,000
Value of tax holiday				700K-600K

(ii) The Tax Office of Arcadia (fictitious country) just announced that it would scrap the 20% withholding tax imposed on interest payments paid to foreign investors holding Arcadian government bonds. Until now, investors from countries with a double-taxation agreement with Arcadia had to wait for two years to claim back a portion of the interest that was withheld. What might be the reason(s) for Arcadia to eliminate this tax? **[Max 200 words]**

Foreign investors are likely to be deterred from buying bonds issued by government of Arcadia which would increase the cost of capital and unlikely to raise much revenue. The longer the investors had to wait to claim a portion of withheld interest, the more likely it would be priced as though investors had to pay all the tax. Investors will demand a premium, so the higher interest rate Arcadia would have to pay would offset the income it gets from the withholding tax.

PROBLEMS

1. There are three production stages required before a pair of skis produced by Fjord Fabrication can be sold at retail for NOK2,300. Fill in the following table to show the value added at each stage in the production process and the incremental and total VAT. The Norwegian VAT rate is 25 percent.

Production Stage	Selling Price	Value Added	Incremental VAT
1	NOK 450		
2	NOK1,900		
3	NOK2,300		
		Total VAT	

Production Stage	Selling Price	Value Added	Incremental VAT
1	NOK 450	NOK 450	NOK112.50
2	NOK1,900	NOK1,450	NOK362.50
3	NOK2,300	NOK 400	NOK100.00
		Total VAT	NOK575.00

2. The Docket Company of Asheville, NC USA is considering establishing an affiliate operation in the city of Wellington, on the south island of New Zealand. It is undecided whether to establish the affiliate as a branch operation or a wholly-owned subsidiary. New Zealand taxes income of both resident corporations and branch operations at a flat rate of 28 percent. New Zealand withholds taxes at 5 percent on dividends for an investor who holds at least 10 percent of the shares in the subsidiary company that pays the dividend; 0 percent if the investor holds 80 percent or more of the shares in the subsidiary company and meets other criteria; 15 percent in all other cases. New Zealand does not withhold taxes on branch income. The United States has an income tax rate of 35 percent on income earned worldwide, but gives a tax credit for taxes paid to another country. Based on this information, is a branch or subsidiary the recommended form for the affiliate?

If Docket establishes a branch operation in New Zealand, it will pay a total of 35 percent on its New Zealand source income. It will pay 28 percent in New Zealand and an additional 7 percent in the United Sates after a receiving a tax credit for the New Zealand taxes. If Docket sets up its New Zealand affiliate as a subsidiary, the subsidiary will pay taxes at 28 percent on New Zealand taxable income, but since the parent firm has 100 percent ownership, it will not have any taxes withhold on dividends paid to its parent. Total taxes credits will be [.28 + 0 – (.28 x 0)] = .28 or 28 percent in the United States. (See Example 21.2 for an explanation of this formula.) An additional 7 percent in taxes will be paid in the United Sates after a receiving the 28 percent tax credit, for a total of 35 percent. Consequently, in this case it does not matter whether the Docket Company establishes a branch operation or a wholly owned subsidiary under current tax law in New Zealand.

3. Affiliate X sells 10,000 units to Affiliate Y per year. The marginal tax rates for X and Y are 20 percent and 30 percent, respectively. The transfer price per unit is currently set at $1,000, but it can be set as high as $1,250. Calculate the increase in annual after-tax profits if the higher transfer price of $1,250 per unit is used.

Total tax savings = 10,000 x ($1,000 - $1,250) x (0.20 - 0.30) = $250,000.

MINI CASE: SIGMA CORP.'S LOCATION DECISION

Sigma Corporation of Boston is contemplating establishing a wholly owned subsidiary operation in the Mediterranean. Two countries under consideration are Spain and Cyprus. Sigma intends to repatriate all after-tax foreign-source income to the United States. In the U.S., corporate income is taxed at 35 percent. In Cyprus, the marginal corporate tax rate is 10 percent. In Spain, corporate income is taxed at 30 percent. The withholding tax treaty rates with the U.S. on dividend income paid is 5 percent from Cyprus and 10 percent from Spain.

The financial manager of Sigma has asked you to help him determine where to locate the new subsidiary. The location decision of Cyprus or Spain will be based on which country has the smallest total tax liability.

The total (income and withholding) tax liability in Cyprus will be: [.10 + .05 - (.10 x .05)] = .145 or 14.5 percent. Additional taxes in the U.S. would be due, bringing the total tax liability up to the U.S. income tax rate of 35 percent. The total (income and withholding) tax liability in Spain will be: [.30 + .10 - (.30 x .10)] = .37, or 37 percent. Since this is greater than the U.S. income tax rate of 35 percent, no additional taxes would be due in the U.S. If there are excess foreign tax credits (equal to 2 percent of foreign-source taxable income) that can all be used by carrying them back one year and forward ten years, then the total tax liability will equal the U.S. income tax rate of 35 percent. If excess foreign tax credits cannot all be used, as is more typically the case, the total tax liability can be as high as 37 percent. Consequently, Sigma Corporation should establish its wholly-owned subsidiary in Cyprus.

MINI CASE: EASTERN TRADING COMPANY'S OPTIMAL TRANSFER PRICING STRATEGY

The Eastern Trading Company of Singapore ships prepackaged spices to Hong Kong, the United Kingdom, and the United States, where they are resold by sales affiliates. Eastern Trading is concerned with what might happen in Hong Kong now that control has been turned over to China. Eastern Trading has decided that it should reexamine its transfer pricing policy with its Hong Kong affiliate as a means of repositioning funds from Hong Kong to Singapore. The following table shows the present transfer pricing scheme, based on a carton of assorted, prepackaged spices, which is the typical shipment to the Hong Kong sales affiliate. What do you recommend that Eastern Trading should do?

Eastern Trading Company Current Transfer Pricing Policy with Hong Kong Sales Affiliate

	Singapore Parent	*Hong Kong Affiliate*	*Consolidated Company*
Sales revenue	S$300	S$500	S$500
Cost of goods sold	200	300	200
Gross profit	100	200	300
Operating expenses	50	50	100
Taxable income	50	150	200
Income taxes (20%/17.5%)	10	26	36
Net income	40	124	164

Eastern Trading is currently in a good situation. Because the income tax rate in Hong Kong is less than in Singapore, Eastern Trading's present low markup transfer price strategy results in larger pre-tax income in Hong Kong, which is taxed at only a 17.5% rate versus the 20% rate on taxable income in Singapore. If Eastern Trading is free to repatriate profits from Hong Kong, it defers paying the additional tax due (20% - 17.5% = 2.5%) in Singapore until the profits are actually repatriated. Nevertheless, the marginal tax rate on Hong Kong taxable income will eventually be 20% upon repatriation. Therefore, since Eastern Trading is concerned about repatriation under Chinese control of Hong Kong, it might attempt to increase its transfer price.

If Eastern Trading is successful in increasing the transfer price, more of the taxable income per unit will be taxed at the current time in Singapore at 20%. A 25% increase in the transfer price would raise it from S$300 to S$375 per unit. At S$375, the split would be as follows:

Eastern Trading Company Current Transfer Pricing Policy with Hong Kong Sales Affiliate

	Singapore Parent	*Hong Kong Affiliate*	*Consolidated Company*
Sales revenue	S$375	S$500	S$500
Cost of goods sold	200	375	200
Gross profit	175	125	300
Operating expenses	50	50	100
Taxable income	125	75	200
Income taxes (20%/17.5%)	25	13	38
Net income	100	62	162

The higher transfer price would result in only S$64 left to be repatriated from Hong Kong instead of S$124.