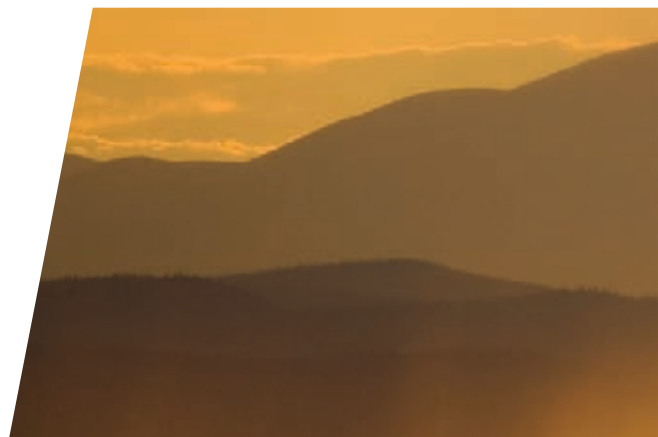




A new wave for New Zealand

Accounting for the New Zealand
Emissions Trading Scheme



As part of New Zealand's response to global climate change and its obligations under the Kyoto Protocol, the New Zealand Government has introduced the New Zealand Emissions Trading Scheme (ETS).

In this publication, we discuss some of the accounting issues arising from the ETS. We also briefly discuss the potential tax implications. It is important to note that accounting practice is still emerging. This is because there is no specific guidance in existing accounting standards, the ETS is being introduced in stages across various industry sectors and the ETS differs from schemes in other countries, which largely comprise cap and trade schemes. In addition, the accounting issues faced by a particular entity will depend on various factors, such as the industry sector in which it operates, the decisions made on managing the entity's obligations under the ETS and its accounting policies.

Therefore, this publication does not cover all the possible accounting issues that might arise under the ETS – rather, use it as a tool to help you in identifying the specific accounting issues relevant to your business, to consider your accounting policy options where choices are available and to help you in discussions with internal and external stakeholders.

We expect that accounting practice will continue to develop over the next few years, as New Zealand entities and their advisers and auditors work through emerging issues. In addition, the outcome of the International Accounting Standards Board (IASB) project on emission trading schemes is likely to impact on the accounting treatment of the ETS.

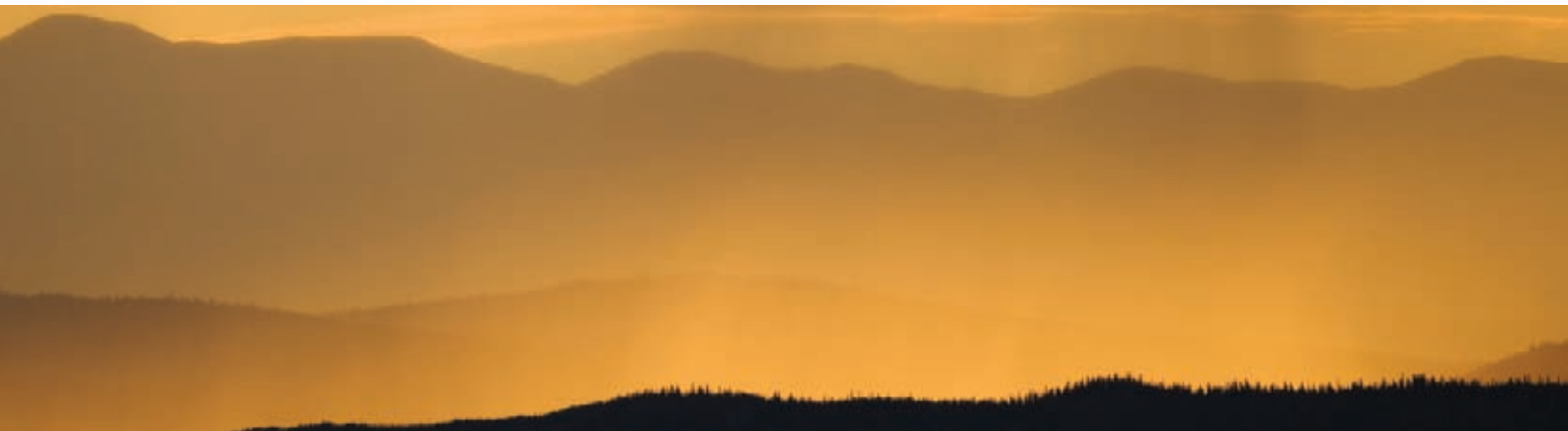
The discussions below provide an overview of the ETS and its application in different sectors. We consider the accounting treatment on initial recognition and subsequently for the emission units received and purchased. We then consider the accounting for any performance obligations that arise under the ETS in relation to surrendering of emission units. Finally, we briefly discuss the possible tax implications of the ETS.

Overview of the Emissions Trading Scheme

The ETS was passed into law in September 2008 and it sets up a mechanism for pricing the emissions of greenhouse gases as well as providing an incentive to reduce emissions. Some participants are issued emission units known as New Zealand Units (NZUs) from the Crown. Participants are able to buy and sell NZUs domestically or Kyoto units internationally. NZUs can be exchanged for Kyoto units for international trade within the limits set by the Kyoto Protocol.

Since being passed into law, the ETS has subsequently undergone a number of amendments. One of these amendments was the introduction of a transition period from 1 July 2010 to 31 December 2012. During this period:

- ▶ Participants will be able to buy NZUs from the Crown for a fixed price of NZ\$25
- ▶ Participants will have to surrender only one emission unit for every two tonnes of emissions they produce



Sector	Surrenders NZUs	Earns NZUs	Allocated NZUs by the Crown	Year of entry
Forestry	•	•	•	2008
Energy	•			2010
Fishing			•	2010
Industrial processes	•		•	2010
Liquid fossil fuels	•			2010
Synthetic gases ¹	•			2013
Waste	•			2013
Agriculture	•		•	2015

Participants are required to surrender NZUs or Kyoto units to the Crown for their emission obligations under the ETS. After the transition period, the price of an NZU will be determined by the market and participants will have to surrender one emission unit for every tonne of emissions they produce.

The ETS covers the following sectors of the economy: forestry, energy, fishing, industrial processes, liquid fossil fuels, synthetic gases, waste and agriculture.

As highlighted in the above table, not all sectors enter the ETS at the same time, only certain sectors are allocated NZUs from the Crown without charge and currently only the forestry sector can earn NZUs from the Crown¹.

In this guidance, we explore the accounting issues that arise from the ETS specifically around the accounting for the allocation or earning of NZUs from the Crown, the purchase of NZUs in the market and the obligation to surrender NZUs.

This guidance does not, however, discuss in any depth the nature of the ETS. More information on the ETS is available on www.climatechange.govt.nz. Other Ernst & Young publications are available at www.ey.com which provide more information about climate change issues and sustainability programmes.

¹ We note that the Synthetic Gases sector has the ability to claw back NZUs that they have surrendered on importing of gases if the gases are re-exported for destruction or are contained in manufactured equipment. This is not considered part of the allocation process but instead is classed as a removal activity.

Accounting practices

At present, there is no accounting standard or interpretation within New Zealand equivalents to International Financial Reporting Standards (NZ IFRS) or International Financial Reporting Standards (IFRS) that deals specifically with the accounting for emissions trading schemes. The IASB has a project to develop a standard on the topic, but does not expect to issue an Exposure Draft until the second half of 2011. Entities must therefore apply judgment and determine an accounting policy based on the general principles of NZ IFRS and the requirements of particular standards.

It is important to note that there are some accounting policy choices discussed below and, therefore, entities will need to consider and select an appropriate accounting policy in accordance with NZ IAS 8 *Accounting Policies, Changes in Accounting Estimates and Errors* (NZ IAS 8). The accounting policy initially selected can be changed in the future, provided it meets the criteria for a voluntary change in accounting policy in NZ IAS 8. In particular, NZ IAS 8 requires that an accounting policy can be changed only if the change results in the financial statements providing reliable and more relevant information to users of the financial statements (or is required by a NZ IFRS).

For example, under NZ IAS 20 *Accounting for Government Grants and Disclosure of Government Assistance* (NZ IAS 20), the NZUs allocated by the Crown represent a non-monetary government grant that is measured either at fair value or at a nominal amount (i.e. nil). In our view, a change in accounting policy from measuring the NZUs at nil to measuring them at fair value is more likely to satisfy the criteria in NZ IAS 8, compared with a change in accounting policy from measuring at fair value to measuring at nil. However, any change in accounting policy would need to be assessed based on the facts and circumstances at the time the change is being considered.



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Accounting for the Asset – the NZU

There are two methods of obtaining NZUs under the ETS – those granted by the Crown without charge (either allocated or earned) and those purchased. We consider each type of asset separately below.

Government granted NZUs

Recognition

Only a few industries have been, or will be, allocated NZUs without charge from the Crown; those being forestry, fishing, industrial processes and agriculture.

The NZUs obtained through a free allocation should be recognised as an intangible asset (or inventory if held for resale) when the entity 'controls' the NZUs, provided that it is probable that economic benefits will flow to the entity and the cost (or fair value) of the asset can be measured reliably.

In general, control of the NZUs would arise when the entity is entitled to claim those units from the Crown. For example, in the case of post-1989 forests in the forestry sector, in our view, an entity controls the NZUs when they are earned by sequestering carbon.

When an asset is recognised at fair value (discussed below), it is necessary to consider when the corresponding

government grant income should be recognised in the Income Statement.

Entities that are not Public Benefit Entities (PBEs) are required to account for government grants in accordance with NZ IAS 20. PBEs are however excluded from the recognition, measurement and presentation requirements of NZ IAS 20 and therefore would be required to account for the receipt of the NZUs in accordance with other NZ IFRS.

NZ IAS 20 requires grants to be recognised in income 'over the periods necessary to match them with the related costs which they are intended to compensate, on a systematic basis.' NZ IAS 20 also states 'a government grant that becomes receivable as compensation for expenses or losses already incurred... shall be recognised as income of the period in which it becomes receivable'. We discuss below some examples outlining the implications of this for certain sectors on the recognition of income arising from NZUs received as government grants from the Crown:

- ▶ Pre 1990 Forest – Pre 1990 forest owners are restricted in the future use of the land; if they decide to deforest² the land, they are required to surrender units to the Crown. This restriction on land use could lead to a devaluation in the value of the land.

² Deforestation is when land is no longer used for forestry activities, e.g. an entity decides to build an apartment block on the land instead. This is contrasted with harvesting where the forest is cut down but replanting occurs so the use of the land remains as forestry.



Therefore, the receipt of NZUs is provided to compensate owners for losses incurred through the decrease in land value. As this loss has already been incurred, income should be recognised when the NZUs become receivable.

- ▶ Post 1989 Forest – The NZUs relate to the carbon sequestered in growing trees – a biological asset.
 - ▶ If the forest is carried at fair value then grant income is recognised when conditions relating to the grant are met (NZ IAS 41 *Agriculture*). As there are no conditions attached to the grant, income is recognised when the NZUs become receivable.
 - ▶ If the forest is carried at depreciated cost, income is recognised in accordance with NZ IAS 20. In our view, there are no future costs relating to the sequestration of carbon, therefore, income should be recognised when the NZUs become receivable.
- ▶ Industrial Processes – The receipt of NZUs is based on the emissions expected to be produced through certain activities. Therefore, the income from the NZUs should be spread over the commitment period as the cost of surrendering NZUs is incurred and charged to the income statement.

Measurement – initial and subsequent

NZ IAS 20 permits government grants in the form of non-monetary assets to be recognised initially at either their fair value or at a nominal amount (i.e. nil). This is an accounting policy choice, and therefore the policy selected should be applied consistently.

It should be noted that if the assets are measured at nil, then no government grant income will be recognised. In addition, the approach adopted for the measurement of the NZU asset could impact on the measurement of the liability, if an obligation to surrender units arises (discussed below).

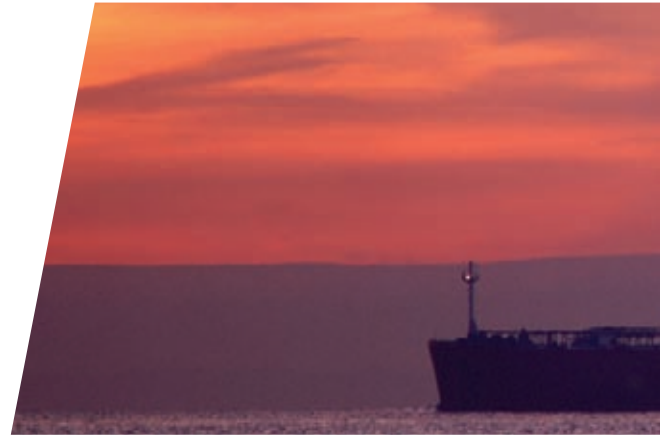
Subsequent to initial recognition, the accounting for the units recognised at fair value follows NZ IAS 38 *Intangible Assets* (NZ IAS 38) or, if held for resale, NZ IAS 2 *Inventories* (NZ IAS 2). NZ IAS 38 discusses the accounting for the subsequent measurement of intangible assets either at cost (less amortisation and impairment) or fair value. Subsequent measurement at fair value is only allowed for intangible assets that have an active market. Those NZUs carried as inventory are subsequently measured at the lower of cost and net realisable value.

Impairment testing will be necessary if there is an indicator that the carrying value of the NZUs might not be recoverable.

Purchased NZUs

Those industries that are required to surrender NZUs, but that do not receive an allocation from the Crown, will have to purchase NZUs to satisfy their ETS obligations. Also, entities that have been allocated NZUs but do not have sufficient to cover their obligations under the ETS (as the allocation was not sufficient, or they had sold their allocations of NZUs) will have to purchase NZUs. Another situation where NZUs are purchased may be an entity that is not covered by the ETS but that can settle their obligations with suppliers by providing NZUs instead of cash.

Purchased NZUs will meet the definition of an intangible asset when an entity gains control of the NZUs. Initial recognition as intangible assets (or inventory if held for sale) will be at cost in accordance with NZ IAS 38 (or NZ IAS 2). Subsequent accounting will be similar to that described above. There will be no income recognised on purchase of the NZUs as there is no government grant arising from the purchase transaction.



Accounting treatment – Emissions’ liability

Recognition

The liability for the obligation to surrender NZUs arises as emissions are made (or the occurrence of the specific event that triggers an obligation to surrender units). This follows NZ IAS 37 *Provisions, Contingent Liabilities and Contingent Assets* which states that there is no liability until an obligating event occurs. Below are some examples outlining the application of this to certain industries.

Please note these are general considerations only and for specific areas or sectors it would be beneficial to review the specific terms of the obligations under the ETS.

- ▶ Pre 1990 Forest – In our view, a liability arises once deforestation occurs as this is when the entity has a present obligation to surrender NZUs to the Crown. Prior to this, the entity has the ability to avoid the obligation by not deforesting.
- ▶ Post 1989 Forest – In our view, the obligation to surrender NZUs usually arises on the reduction of carbon stocks through harvest, fire or otherwise. Prior to this event, usually

the obligation can be avoided by the entity’s future actions, e.g. not harvesting the forest.

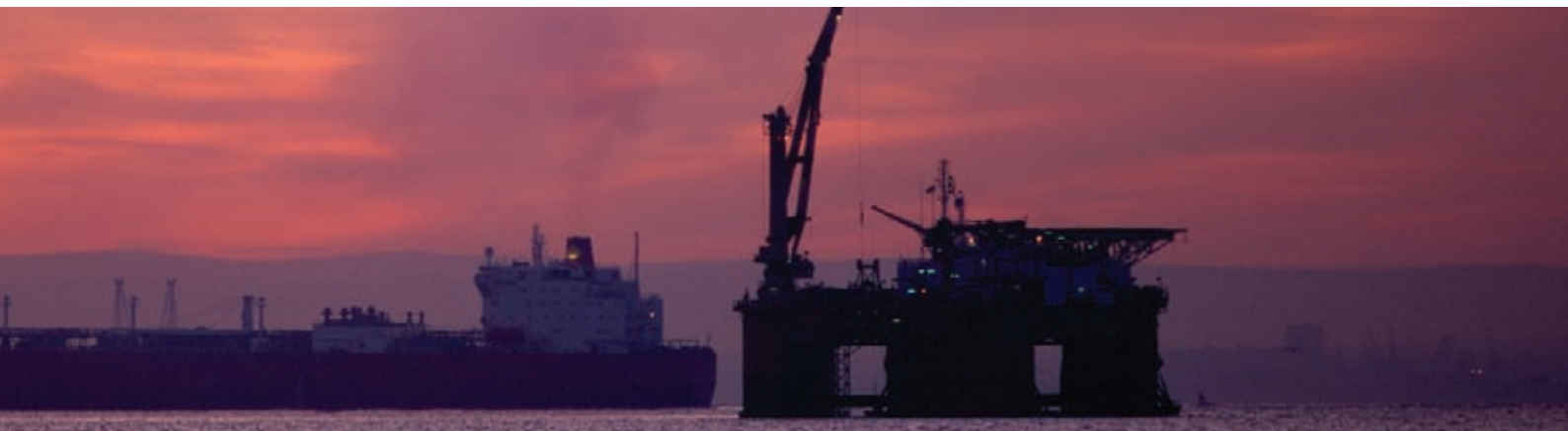
- ▶ Energy – Usually, the obligation arises on removal of coal, natural gas or geothermal fluid from a stockpile for use/sale, not the burning of the fuel³. For mining, the obligation does not arise when mined but when sold or used domestically as this is when the ETS requires the NZUs to be surrendered.
- ▶ Industrial Processes – The obligation arises when carbon-containing material is used in production for iron, steel and aluminium producers. Other industries may have a different obligating event.

Measurement

Because there is no specific standard on accounting for emission units, there is an accounting policy choice on how to measure any liability that arises from the ETS. This accounting policy choice should be applied consistently. In our view, entities should select one of the following three options for measuring the liability:

1. The market value approach

This approach is based on IFRIC 3 *Emission Rights*, which was issued in 2004 by the International Financial Reporting Interpretations Committee



(IFRIC) but withdrawn by the IASB in 2005. Although the Interpretation was withdrawn, it continues to be an acceptable method of accounting for emission rights. Under this approach, the total liability for NZUs to be surrendered is measured at the present market price of the number of NZUs required to be surrendered.

2. The government grant (or cost of settlement) approach

This approach is relevant where NZUs allocated by the Government have been measured at fair value (i.e. it does not apply where NZUs allocated by the Government are measured at nil). Under this approach, rather than measuring the liability at the present market price of the emission units, the liability is measured by reference to:

- a. The amounts recorded for the emission units held as assets that will be used to settle the liability
- b. The cost of buying NZUs to make up any shortfall between the units to be surrendered and the units held

3. The net liability approach

This approach is relevant where the NZUs granted are recorded at their nominal amount (i.e., nil), so does not apply where NZUs are measured at fair

value. The entity recognises a liability only for the cost of buying NZUs to make up any shortfall, when the NZUs to be surrendered exceed the units held.

The key difference between approach 2 and approach 3 is that the measurement of the liability will depend on whether the NZUs allocated by the Crown have been measured at nil or fair value.

An entity might also have purchased NZUs that will be used to settle the liability to surrender units. If so, the carrying amount of the purchased units will need to be taken into account when measuring the liability under both approaches 2 and 3.

Appendix A includes an example of the accounting treatments under the three different models in the forestry sector.

Tax implications

New provisions in the *Income Tax Act 2007* provide for the tax treatment of NZUs. The specific tax treatment varies depending on the sector to which NZUs apply.

Emissions units relating to the forestry sector

Different tax treatment applies to NZUs which relate to pre-1990 and post-1989 forests.

NZUs relating to post-1989 forests are ordinarily treated as being on revenue account, meaning that taxable income arises and tax deductions are created in respect of these transactions. In general, no taxable income arises on the allocation of the NZUs by the Crown and no income tax deductions are created by the surrender of units to meet an emissions liability. However, a tax liability arises on the sale of NZUs. Also, a tax deduction should generally be created by the purchase of NZUs to the extent that they are used to settle an emissions' liability.

By contrast, transactions for NZUs relating to pre-1990 forests are generally treated as being on capital account, meaning that income tax liabilities do not arise from the allocation of NZUs by the Crown or from the subsequent sale of NZUs. No income tax deductions are created by the surrender of units to meet an emissions liability or by the purchase of replacement NZUs.

³ Where the ETS permits an optional stockpile adjustment, we have assumed that the entity has elected to make this stockpile adjustment under the ETS.

Emissions units relating to the non-forestry sector

Certain non-forestry businesses will also be allocated NZUs. This allocation of units is on revenue account, so taxable income will arise. However, income and expenditure is recognised on an accruals basis, consistent with ordinary tax and accounting practice. As such, a tax liability does not arise immediately on allocation of the NZUs, but is treated as arising on an emerging basis over the period to which the allocation relates. Therefore, the tax liability is matched to the expenses for which the award compensates.

To the extent that New Zealand companies purchase emissions units offshore, further consideration should be given to the New Zealand tax implications.

Other issues

Disclosures

Disclosures will have to be made about the accounting policies adopted for emissions units and the assumptions used in any measurement valuations. In the forestry sector, this includes the forest valuations.

In some cases, there is a contingent liability to surrender units in the future. NZ IAS 37 Provisions, Contingent Liabilities and Contingent Assets requires the disclosure of a brief description of the nature of the contingent liability and, where practicable:

- ▶ An estimate of its financial effect
- ▶ An indication of the uncertainties relating to the amount or timing of any outflow
- ▶ The possibility of any reimbursement

Deferred tax

The deferred tax treatment relating to allocated NZUs and emission liabilities is complex and will differ depending on an entity's specific facts and circumstances. Among other things, different treatments arise depending on the industry sector you are in and the intentions of the holder of the NZUs, i.e. whether the intention is to hold for resale or to settle future emission obligations. We advise entities to speak to their tax or accounting advisor for further information.



Appendix A

Example of measurement options

Pre-1990 Forest – Example for one-off initial allocation of NZUs and recording of liability upon deforestation

Entity A receives 10,000 NZUs on 1 July 2010. The market price of an NZU at 1 July 2010 is \$25.

The entity deforests the land on 1 July 2011, obligating Entity A to surrender 40,000 NZUs.

The market price of an NZU at 1 July 2011 is \$35

The impact of the alternative accounting approaches is summarised below:

Recognise an asset and revenue at 1 July 2010	Record NZUs at Fair Value*	Record NZUs at cost
Dr Intangible Assets	\$250,000 (10,000 x \$25)	\$0 (10,000 x \$0)
Cr Government Grant Revenue	\$250,000	\$0

*Assuming the revaluation model in NZ IAS 38 is not adopted for subsequent measurement of the units e.g. because of no active market

Recognise a liability on 1 July 2011 when deforestation complete	The market value approach	The cost of settlement approach	The net liability approach
Dr Emission Expense	\$1,400,000 (40,000 x \$35)	\$1,300,000 (10,000 x \$25) plus (30,000 x \$35)	\$1,050,000 (10,000 x \$0) plus (30,000 x \$35)
Cr Liability	\$1,400,000	\$1,300,000	\$1,050,000

Note that if the market value approach is applied, there will be a gain on disposal of the units held when the liability is settled by transferring units. In the above, example, the gain will be: 10,000 units at (\$35 – \$25) = \$100,000.

Post 1989 Forest – Example for accounting for net movements in carbon stocks

Entity B earns 1 NZU for every increase in net carbon stock per hectare and surrenders 1 NZU for each decrease in net carbon stock per hectare.

On 1 July 2010, Entity B has an increase in net carbon stock of 1,000 ha, and the market price of a NZU is \$25 on 1 July 2010.

On 1 July 2011, Entity B has a decrease in carbon stock of 800 ha (including taking into account the decrease expected to occur in the future when the stumps of harvested trees decay), and the market price of an NZU is \$35 on 1 July 2011.

The impact of the alternative accounting approaches is summarised below:

Recognise an asset and revenue at 1 July 2010	Record NZUs at Fair Value*	Record NZUs at cost
Dr Intangible Assets	\$25,000 (1,000 x \$25)	\$0 (1,000 x \$0)
Cr Government Grant Revenue	\$25,000	\$0

*Assuming the revaluation model in NZ IAS 38 is not adopted for subsequent measurement of the units (e.g. because there is no active market)

Recognise a liability on 1 July 2011 for net decrease in carbon stock	The market value approach	The cost of settlement approach	The net liability approach
Dr Emission Expense	\$28,000 (800 x \$35)	\$20,000 (800 x \$25)	\$0 (800 x \$0)
Cr Liability	\$28,000	\$20,000	\$0

Note that if the market value approach is applied, there will be a gain on disposal of the units held when the liability is settled by transferring units. In the above, example, the gain will be: 800 units at (\$35 – \$25) = \$8,000.

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