**NZQA**

**Approved**

Achievement standard: 90988 Version 3

Standard title: Demonstrate understanding of the interdependence of sectors of the New Zealand economy

Level: 1

Credits: 3

Resource title: Is there money in mining?

Resource reference: Economics VP-1.6 v2

Vocational pathway: Primary Industries

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| Quality assurance status | These materials have been quality assured by NZQA.  NZQA Approved number A-A-02-2015-90988-02-7207 |
| Authenticity of evidence | Assessors/educators must manage authenticity for any assessment from a public source, because learners may have access to the assessment schedule or exemplar material.  Using this assessment resource without modification may mean that learners’ work is not authentic. Assessors/ educators may need to change figures, measurements or data sources or set a different context or topic to be investigated or a different text to read or perform. |

Vocational Pathway Assessment Resource

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Learner instructions

# Introduction

This assessment activity requires you to demonstrate understanding of the interdependence between primary, secondary and tertiary firms, and illustrate and explain how your household is interdependent with producers, the government and financial sector of the New Zealand (NZ) economy.

You are going to be assessed on how comprehensively you demonstrate understanding of the interdependence of sectors in the NZ economy using the mining industry as your focus.

The following instructions provide you with a way to structure your work so you can demonstrate what you have learnt and achieve success in this standard.

Assessor/educator note: It is expected that the assessor/educator will read the learner instructions and modify them if necessary to suit their learners.

# Task

You will use the mining firm you work for to illustrate and explain how they are interdependent with other primary, secondary or tertiary firms (sectors). You will also explain how or why your household is interdependent with the mining firm as a producer and how or why your household is interdependent with the government and financial sector of the NZ economy, using an economic model.

You are going to select an event that will affect the firm that you work for in the mining industry and explain how the event impacts on the wider producer sector and the flow-on effects to other sectors of the NZ economy, using an economic model.

The sectors in the NZ economy refer to:

* producer (divided into primary, secondary and tertiary firms)
* household
* financial
* government
* and overseas.

‘Interdependence’ refers to the two-way relationships that exist between different sectors.

There are two parts to this task; you need to complete both parts of this activity.

## Part 1: Sectors, flows and interdependence

Briefly introduce your mining firm by naming it and the type of producer sector (primary, secondary, or tertiary firm) that it belongs to, and define or describe the key characteristics of this sector.

Name two other firms that your mining business deals with and explain their interdependent relationships using Resource 1 as a guide.

Construct a five-sector circular flow diagram using arrows to show real flows and money flows and label them. The relationships you show must be interdependent so you need to show two-way real and money flows. Use Resource 2 to help with planning your diagram model.

Explain in detail how or why the mining business is interdependent with your household; refer to the real and money flows in your answer.

Explain in detail how or why your household is interdependent with the government and financial sector; refer to the real (where applicable) and money flows in your answer.

## Part 2: The event’s impact on the mining industry and flow-on effects

In this part you need to focus on the whole mining industry and other sectors of the NZ economy, not just the mining firm you work for used in Part 1.

Select an event from the list below or use another that has been approved by your assessor/educator:

* mining disaster, for example Pike River, Strongman
* decrease in prices of overseas products due to a stronger NZ dollar
* new health and safety regulations for all mining-related activities
* increased demand from China for NZ coal.

Brainstorm a list of economic effects that your selected event will have on the NZ mining industry.

Explain in detail how the selected event will impact on the mining industry and on the wider producer sector. Refer to the businesses identified in your diagram in Part 1.

Using your circular flow diagram (based on Resource 2) show the impact of the selected event on the producer sector and other sectors of the NZ economy. Use arrows to indicate a decrease or increase in real and money flows and add brief notes to explain the arrows.

Explain in detail the flow-on effects from the producer sector to other sectors. Explain clearly the links between the initial impact of the event and the flow-on effects throughout the NZ economy, incorporating the changes shown on your economic model above.

# Resources

## Resource 1: Interdependence within the producer sector

**Mining Firm**

Explain the nature of the Interdependence

Explain the nature of the Interdependence

Tertiary producer; for example:

Secondary producer; for example:

***Resource 2: The five sectors of the circular flow diagram***

Financial Sector

Overseas Sector

Household Sector

Producer Sector

(Mining Industry)

**Key:**

Real Flow

Money Flow

Vocational Pathway Assessment Resource

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Assessor/Educator guidelines

# Introduction

The following guidelines are supplied to enable assessors/educators to carry out valid and consistent assessment using this internal assessment resource.

As with all assessment resources, education providers will need to follow their own quality control processes. Assessors/educators must manage authenticity for any assessment from a public source, because learners may have access to the assessment schedule or exemplar material. Using this assessment resource without modification may mean that learners' work is not authentic. The assessor/educator may need to change figures, measurements or data sources or set a different context or topic. Assessors/educators need to consider the local context in which learning is taking place and its relevance for learners.

Assessors/educators need to be very familiar with the outcome being assessed by the achievement standard. The achievement criteria and the explanatory notes contain information, definitions, and requirements that are crucial when interpreting the standard and assessing learners against it.

# Context/setting

This activity requires learners to use their workplace or investigate a mining firm to gain an understanding of the interdependence of sectors of the New Zealand economy.

Learners use the firm and their own household to gain understanding about the interdependent relationships they have with other sectors of the economy, and how an event can impact on the mining industry and have flow-on effects to other sectors of the NZ economy, using an economic model they have constructed.

# Conditions

Allow learners who do not currently work for a mining firm to visit a mining firm to understand the business and collect information from it. This could be done in small groups or pairs, and is not assessed. If learners cannot collect suitable evidence in the field they could use the internet, or resource materials could be provided by the assessor/educator.

# Resource requirements

Suitable websites can be added to support this task on the mining industry.

<http://www.nzherald.co.nz/business/news/article.cfm?c_id=3&objectid=10691213>

[money.msn.co.nz/blog.aspx?blogentryid=743949&showcomments=true](http://money.msn.co.nz/blog.aspx?blogentryid=743949&showcomments=true)

[www.coalnz.com/index.html](http://www.coalnz.com/index.html)

# Additional information

Other possible modes of assessment include self-assessment, peer assessment, an electronic portfolio, blog or wiki, oral demonstration or visual portfolio (e.g. video or annotated photographs).

## Other possible contexts for this vocational pathway

This resource could be adapted for workers in other primary industries such as farming workers, fisheries or forestry workers who need to gain an understanding of the interdependence of sectors of the New Zealand economy, and understand how an event can impact on the industry they work in and have flow-on effects for their own household.

# Assessment schedule: Economics 90988 – Is there money in mining?

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| Evidence/Judgements for Achievement | Evidence/Judgements for Achievement with Merit | Evidence/Judgements for Achievement with Excellence |
| The learner demonstrates understanding of the interdependence of sectors of the New Zealand economy by:   * identifying, defining or describing sectors and flows * providing an explanation of how or why sectors are interdependent * constructing an economic model to show interdependence and the effect of an event on a sector, or flow-on effects to other sectors * providing an explanation of the impact of an event on a sector and/or the flow-on effects to other sectors   The firm XYZ is identified as part of the primary sector. It is part of the primary sector because it extracts raw materials such as coal from the mine.  The firm XYZ relies on KiwiRail, a tertiary firm, to transport their coal and KiwiRail relies on the firm XYZ to use them for freighting their coal for revenue.  The Model (economic circular flow diagram) is used to accurately show the real and money flows between sectors of the economy, including interdependence between the firm XYZ and the household, and the household and government and financial sectors.  Firm XYZ relies on households for labour. Households rely on firm XYZ for wages or salary.  Households rely on government for public goods and services like education and health.  Government relies on households for PAYE direct taxes.  Households rely on the financial sector (banks) for home loans that they pay interest on and for savings accounts that gain interest. Banks rely on households to pay interest on home loans and get household savings that they then use for investment.  The economic impact of a selected event on the mining industry part of the producer sector is explained and/or the flow-on effects to at least two other sectors.  Event: Decrease in prices of overseas products due to a stronger New Zealand dollar.  Impact: Producers can get imported goods such as heavy machinery and the parts they use for extracting coal cheaper.  Flow-on effects: Producer’s costs of imported materials reduces, and households can also afford to buy more imported goods, so firms selling imported products will get more revenue, and the government will get more GST tax.  The above expected learner responses are indicative only and relate to just part of what is required. | The learner demonstrates in-depth understanding of the interdependence of sectors of the New Zealand economy by:   * identifying, defining or describing sectors and flows * providing a detailed explanation of how or why sectors are interdependent, using an economic model * providing a detailed explanation of the impact of an event on a sector and/or the flow-on effects to other sectors, using an economic model   The firm XYZ is identified as part of the primary sector. It is part of the primary sector because it extracts raw materials such as coal from the mine.  The firm XYZ relies on KiwiRail, a tertiary firm, to transport their coal and KiwiRail relies on the firm XYZ to use them for freighting their coal for revenue.  The Model (economic circular flow diagram) is used to accurately show the real and money flows between sectors of the economy, including interdependence between the firm XYZ and the household, and the household and government and financial sectors.  This model is used to support the detailed explanation of the interdependence between sectors of the New Zealand economy, including the household and producer sectors (mining business) and two other sectors.  Firm XYZ relies on households for labour as shown by the real flow arrow from households to firms, and households rely on firm XYZ for income from employment as shown by the money flow arrow from firm XYZ to households.  Firm XYZ also relies on households for consumption spending as shown by the money flow arrow from households to firms, and households rely on firm XYZ for coal, as shown by the real flow arrow from firm XYZ to households.  The government relies on households for GST and PAYE revenue (money flow arrow) and households rely on the government to supply public goods and services like health and education and transfer payments like benefits.  The financial sector relies on households to pay interest on home loans and give them their savings (money flow arrow) which banks pay interest on and give back to households. The savings from households that banks get are as investment (money flow arrow) and loans provided to the producer sector for capital goods.  The economic impact of a selected event on the mining industry part of the producer sector is explained in detail and/or the flow-on effects to at least two other sectors, supported by the economic model.  Event: Decrease in prices of overseas products due to a stronger New Zealand dollar.  Impact: Producers can get imported goods such as heavy machinery and the parts they use for extracting coal cheaper, but the overseas demand for New Zealand coal will reduce (shown by real flow) because of the stronger New Zealand dollar so firm XYZ’s revenue (money flow) from exports will reduce.  Flow-on effects: Producer’s reduced export earnings will mean they will demand less labour (real flow) so households may be affected if people are laid off and their income reduces due to being unemployed, and the government will get less GST and PAYE tax revenue (money flows), but have to pay out more in benefits.  The above expected learner responses are indicative only and relate to just part of what is required. | The learner demonstrates comprehensive understanding of the interdependence of sectors of the New Zealand economy by:   * identifying, defining or describing sectors and flows * providing a detailed explanation of how or why sectors are interdependent, using an economic model * linking detailed explanations of the impact of an event on a sector with detailed explanations of the flow-on effects to other sectors, using an economic model   The firm XYZ is identified as part of the primary sector. It is part of the primary sector because it extracts raw materials such as coal from the mine.  The firm XYZ relies on KiwiRail, a tertiary firm, to transport their coal and KiwiRail relies on the firm XYZ to use them for freighting their coal for revenue.  The Model (economic circular flow diagram) is used to accurately show the real and money flows between sectors of the economy, including interdependence between the firm XYZ and the household, and the household and government and financial sectors.  This model is used to support the detailed explanation of the interdependence between sectors of the New Zealand economy, including the household and producer sectors (mining business) and two other sectors.  Firm XYZ relies on households for labour as shown by the real flow arrow from households to firms, and households rely on firm XYZ for income from employment as shown by the money flow arrow from firm XYZ to households.  Firm XYZ also relies on households for consumption spending as shown by the money flow arrow from households to firms, and households rely on firm XYZ for coal, as shown by the real flow arrow from firm XYZ to households.  The government relies on households for GST and PAYE revenue (money flow arrow) and households rely on the government to supply public goods and services like health and education and transfer payments like benefits.  The financial sector relies on households to pay interest on home loans and give them their savings (money flow arrow) which banks pay interest on and give back to households. The savings from households that banks get are as investment (money flow arrow) and loans provided to the producer sector for capital goods.  An accurate and detailed circular flow diagram is used to demonstrate the economic impact of an event on the mining industry and the flow-on effect to other industries in the producer sector, and at least two other sectors of the economy.  The response demonstrates effective use of appropriate terminology and shows linkages between sectors and the complexity of the flow-on effects. The response also demonstrates comprehensive understanding of the interdependence of sectors of the economy using the mining industry as the initial focus.  Event: Decrease in prices of overseas products due to a stronger New Zealand dollar.  Linking impact and flow-on effects: Firm XYZ relies on KiwiRail to transport their coal to the coast for shipping overseas (real flow) and KiwiRail relies on firm XYZ to use them for freighting their coal for revenue (money flow).  If the demand for coal from the overseas sector reduces because of the high New Zealand dollar, then less coal will be transported and KiwiRail will receive less revenue from firm XYZ (money flows) who are receiving less export receipts. Therefore they will demand less labour (real flow) so households may be affected. If people are laid off and their income reduces due to being unemployed, the government will get less GST and PAYE tax revenue (money flows), but have to pay out more in transfer payments (benefits).  A stronger New Zealand dollar affects all producers who export their goods and services overseas, not just the coal mining industry, and the flow-on effects on many households and government will cause an overall decrease in national income in the New Zealand economy.  The above expected learner responses are indicative only and relate to just part of what is required. |

Final grades will be decided using professional judgement based on an examination of the evidence provided against the criteria in the Achievement Standard. Judgements should be holistic, rather than based on a checklist approach.