



Asset based finance in Scotland:

Finding the well in the desert

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Executive Summary

Asset based finance can be used to secure funding against a range of corporate assets including accounts receivable, inventory, plant and machinery, property and sometimes even intellectual property and brands.

The finance available can vary significantly depending on whether funding is based on profits or assets. An extreme example of the difference between output and assets lies within the Scotch Whisky industry.

Newly established distilleries may take several years before commercial income can be realised. Even when commercial income begins to flow, the value of a distilleries' stock can be several times that of annual operating profits.

Across the UK the ratio of capital assets to Gross Value Added (GVA) in the agriculture, forestry and fishing industry is 10.1. For example, a farming business with capital of £101,000 would generate £10,000 of value (GVA) based on this ratio.

In the legal and accounting industry the ratio is much lower at 0.5. An accountancy business with capital of £5,000 would generate £10,000 of GVA based on this ratio.

The industries outlined in this report suggest that Scotland is well positioned to take advantage of asset based finance.

Capital assets in Scottish R&D are nearly 130 times the value of annual profits in the industry. The value of inventories alone is nearly six times annual profits.

A simple example can be shown of loaning £120 million to two companies in Scotland, one in the forestry industry and one in financial services. If both companies had equal profits, £120 million might be loaned equally between them (£60 million each).

Based on the figures shown in this report, if £120 million were loaned to the same companies based on total capital investment, then £6 million would be loaned to the financial services company and £114 million to the forestry industry company.

There are well known difficulties in securing funding. Scotland's Economic Strategy stresses the need for us to look at innovative funding mechanisms. 4-consulting has already led an RSA group looking at the role of public banking in Scotland.

What is asset based finance?

Asset based finance is a general term used to describe funding against a range of corporate assets including accounts receivable, inventory, plant and machinery, property and sometimes even intellectual property and brands. There are two types of asset based finance: invoice finance and asset based lending.

Invoice finance

There are two forms of funding within invoice finance: invoice discounting and factoring. With this form of funding, businesses can raise cash against unpaid invoices, enabling them to operate without having to wait for clients to settle accounts.

Currently, this is the most popular form of asset based finance. If required, providers can also take on the responsibility for the settlement of the invoice for an administrative fee.

Asset based lending

Asset based lending encompasses a mix of funding, which includes revolving and amortising structures against the entire range of business assets. Traditionally advances are available against invoices, stock, property, plant and machinery, but can be arranged against intangible assets such as brands.

Differences between industry output and investment

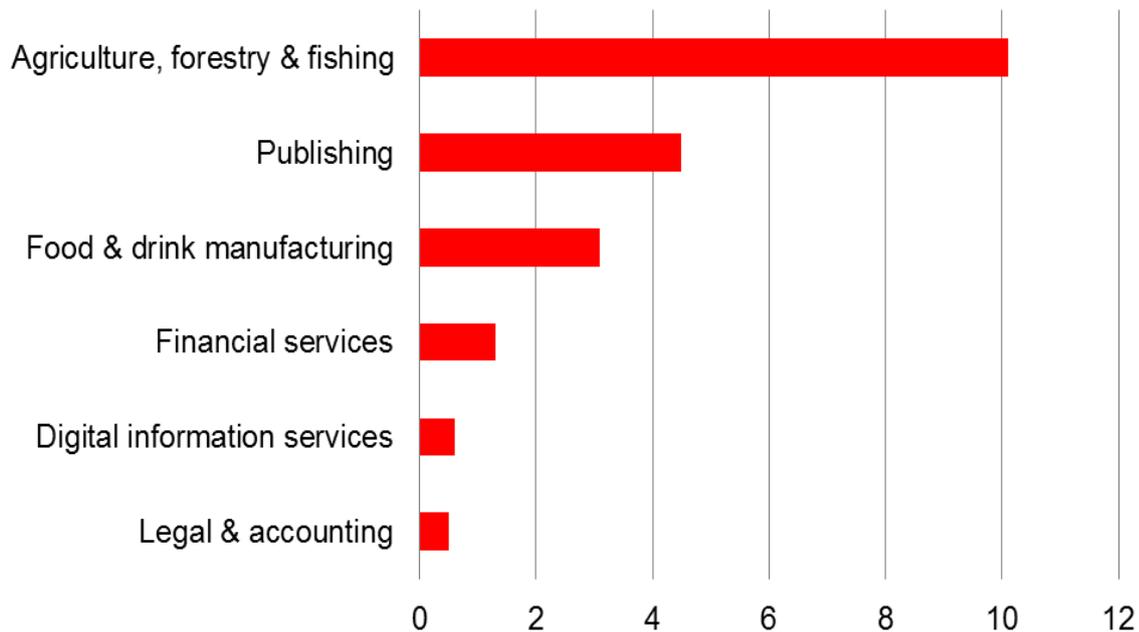
The finance available can vary significantly depending on whether companies are seeking funding based on their profits or the assets they own. An extreme example of the difference between output and capital stock lies within the Scotch Whisky industry.

Newly established distilleries may take several years before commercial income can be realised. Even when commercial income begins to flow, the value of a distilleries' stock can be several times that of annual operating profits.

The ratio of gross capital stock (the value of all assets) to Gross Value Added (GVA)ⁱ in the agriculture, forestry and fishing industry is 10.1. For example, a farming business with capital of £101,000 would generate £10,000 of value (GVA) based on this ratio.

In the legal and accounting industry the ratio of gross capital stock to GVA is much lower at 0.5. For example, an accountancy business with capital of £5,000 would also generate £10,000 of value (profits and wages) based on this ratio.

Figure 1: Ratio of Gross Capital Stock to Gross Value Added



Source: Office for National Statistics, Capital Stocks and Capital Consumptionⁱⁱ

The ratio for agriculture, forestry and fishing is nearly twenty two times that of the legal and accounting industry. Businesses in agriculture, forestry and fishing need vehicles, machinery, boats and buildingsⁱⁱⁱ.

In forestry and fish farming businesses, growing trees and fish will increase the capital stock value. By contrast an accountant may only need to rent an office and own a laptop with the value of capital stock less likely to increase.

Banks normally lend to businesses based on their profits, or likely future profits. Asset based finance takes into account the value of a business' inventories.

A bank manager may feel less nervous about lending to a food manufacturer if £100,000 in added value was backed up by £310,000 in capital stock (based on the capital ratio shown in figure 1).

Use an example of £120 million lent to six businesses, one in each of the industries shown in figure 1. If each business had around the same output then each business would be lent £20 million each, shown in Figure 2.

If funding was distributed based on capital stock then the pattern of lending changes significantly. Using the ratios shown in Figure 1 the capital stock for each business was estimated and the £120 million was redistributed among the six businesses based on its share of capital stock.

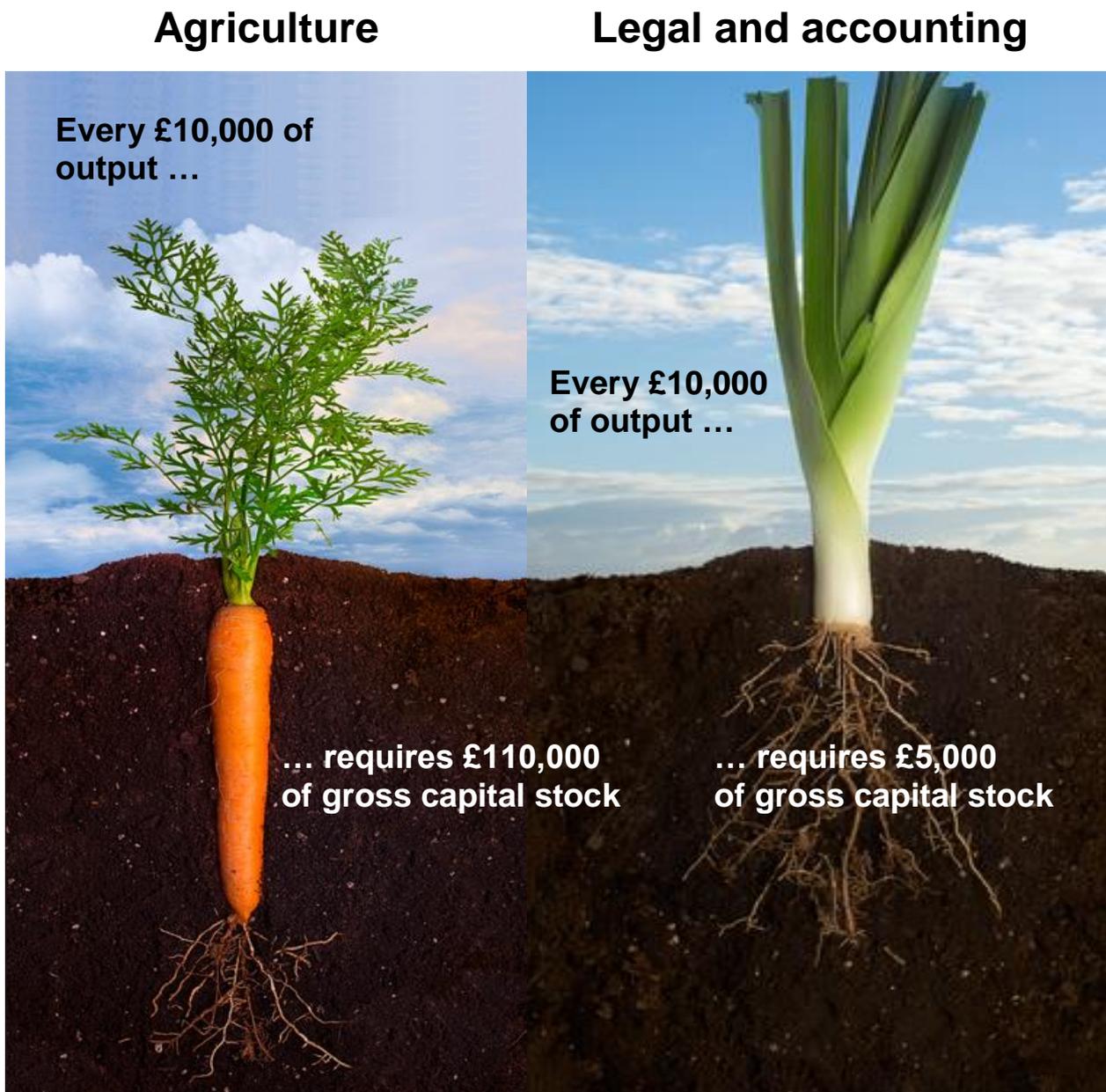
In this case agriculture, forestry and fishing would account for half of all lending. The top three businesses (agriculture, forestry and fishing, publishing and food and drink manufacturing) would account for nearly ninety percent of all funding (88.1%).

Figure 2: Lending based on turnover compared to capital stock

Industry	Based on turnover (£m)	Based on capital (£m)
Legal & accounting	£20	£3
Digital information services	£20	£4
Financial services	£20	£8
Food & drink manufacturing	£20	£19
Publishing	£20	£27
Agriculture, forestry & fishing	£20	£60
Total	£120	£120

Source: 4-consulting based on ONS data (Capital Stocks and Capital Consumption)

Figure 3: Ratio of gross capital stock to output



Asset based finance potential in Scotland

The industries outlined above such as agriculture, forestry, fishing and food and drink manufacturing suggest that Scotland might be well positioned to take advantage of asset based finance.

The Scottish Government produces annual Input-Output tables showing GDP, operating surplus and gross capital investment by detailed industry. The gross capital investment figures also provide information on net changes in inventories.

The ONS data covering the UK measures the capital stock by discounting the value of capital. The discount depends on the number of years since the investment was made, how many years it's expected to last and the scrap value at the end of its life.

The ONS published a list of assets^{iv} showing differences between the average lifespan of each asset. Cultural buildings like theatres are expected to last 80 years on average while computers are expected to last only 5 years.

Discounting the capital stock figures for Scotland would be challenging and require additional data collection. The total sum of gross capital investment from the years available (from 1998 to 2011) is shown without discount.

Ratios for Scotland are based on the operating surplus part of Gross Value Added (GVA). The operating surplus accounts for about 40% of GVA and is mainly comprised of the gross operating profits of companies. The other main part of GVA is the wages and salaries paid to workers. The operating surplus is more useful when considering how finance might be distributed based on assets rather than profits^v.

To provide an alternative measure, the total sum of changes in inventories over the same time period (1998-2011) is also shown. For most industries the change in inventories is very low in each year. For example, in the most recent year available net additions to inventories produced by Scottish industries were 0.7% of Scotland's operating surplus.

Changes to inventories may be a more useful measure than overall capital investment as it measures the value of goods and services held by businesses. For example, in the Scotch Whisky industry it may be more appropriate to measure the stocks of Scotch Whisky which will hold, or increase, its value as it matures instead of the value of capital equipment held by Whisky producers.

Figure 4 shows the ratio of gross capital investment (1998 to 2011) to operating surplus and the ratio of changes in inventories to operating surplus.

The value of capital investment made by Scotland's R&D industry is nearly 130 times the value of annual profits in the industry. The value of inventories alone is nearly six times annual profits.

The work of R&D organisations can take several years before any commercial value is realised. The best part of value in the industry may lie in partly developed innovations and patents slowly winding their way to markets. But R&D is also an industry where profits are often slim and may ultimately be reflected in the bottom line of companies outside of the industry.

Figure 4 suggests a theme whereby the featured manufacturing industries tend to have much higher ratios of capital investment (and inventories) to profits. The financial services industry is shown in Figure 4 to provide a comparison.

Figure 4: Ratio of investment and inventories to operating surplus

Industry	Inventories	Investment
Research & development	5.6	127.2
Furniture	5.0	80.8
Machinery & equipment	3.3	35.5
Fabricated metal	0.9	10.7
Printing and recording	1.0	9.2
Forestry	2.8	6.1
Meat processing	1.8	3.7
Financial services	>0.1	0.3
Total^{vi}	0.1	1.4

Source: 4-consulting based on Scottish Government Input-Output data

The earlier example of loaning £120 million to companies using different criteria can be applied to Figure 4. If two companies, one in the forestry industry and one in financial services, had equal profits, £120 million might be loaned equally between them (£60 million each).

Based on the figures shown in Figure 4, if £120 million were loaned to the same companies based on total capital investment, then £6 million would be loaned to the financial services company and £114 million to the forestry industry company.

There are well known difficulties in securing funding and for some industries, these difficulties are pressing. Earlier this year [concerns were raised](#) by forestry industry leaders over the availability of grant funding and resources to develop the industry.

Scotland's Economic Strategy stresses the need for us to look at innovative funding mechanisms. 4-consulting has already led an RSA group looking at the role of public banking in Scotland.

ⁱ Gross Value Added (GVA) measures the value of goods and services produced by the industries shown in this report over the course of a year. The value is based on the total sales (or output) of a company minus intermediate consumption (including production costs).

ⁱⁱ These industries are based on the Standard Industrial Classification (SIC) codes; MA legal & accounting, JC digital information services, K financial services, CA food & drink manufacturing, JA publishing and A agriculture, forestry & fishing

ⁱⁱⁱ The Gross Capital Stock estimates exclude land.

^{iv} Comparing the perpetual inventory method and the whole of government accounts for depreciation ([link](#)).

^v GVA would be more useful in comparing how different Scottish industries generate value from the capital invested created.

^{vi} This covers the whole of Scotland's economy except for construction (including house building) and retail. The sectors are large enough to significantly skew the figures for Scotland in any year and would rarely be considered for asset based finance.