Orbis Database for Our Research: A Practical User Guide

This user guide will show you how to utilize Orbis - Bureau van Dijk database available at the Victoria University library for our research. Using the perspective from a research student, this guide provides a practical, straightforward guide to collect data. In order to do so, we provide an example of data need for an illustrative purpose. Other needs of different data are easy to collect after understanding this guide and exploring the database by yourself.

Let’s start by identifying a hypothetical model we would like to examine. For an illustrative purpose, let’s say we are interested in examining the relationship between stock return and dividends as specified by the following model:

\[
return_{it} = \beta_0 + \beta_1 dividend_{it} + \beta_2 ROA_{it} + \beta_3 asset_{it} + \epsilon_{it}
\]

where \(return\) is the stock return, calculated by \(return_{it} = \log(price_{it} - price_{t-1})\); \(dividend\) is the ordinary dividend payment; \(ROA\) is return on assets, and \(asset\) is the total assets. The subscript \(i\) denotes individual firms and \(t\) indexes year. \(ROA\) and \(asset\) are set as control variables.

Again, as an illustrative purpose, we are interested in Australian equity market over the period 2008-2012. Our sample is non finance firms listed on the Australian Stock Exchange. With this need, we practically would collect a panel data set which looks like as follows:

![Panel Data Set Example](image-url)
To access Orbis database, visit the VU library website, find databases A to Z, and click O:

Click connect to Orbis – Bureau van Dijk:

Orbis - Bureau van Dijk

*(Connecting to the service via these links indicates you have read and agreed to the guidelines set out in “Appropriate Use”)*
After entering our student ID and library password, we will have a full access to the database:

Remember that we aim to download non-finance listed firm accounting data from Australia over the period 2008-2012.

First we need to choose Australia by the following steps:

Click Location -> World region/Country/Region in country
Tick *Australia* and then *OK*

We will find this screen below. Looking at the summary (as indicated below), we know that Orbis covers data for 564,348 firms around the world, where 16,851 are located in Australia.
However, we only need data form listed firms; therefore we shall limit the search further by clicking *Legal form* and then *Public/Private/Branch*:

Tick *Public* and *OK*
And then click **Stock data -> Listed/unlisted companies** and OK

Tick **Publicly listed companies** and OK
Now, we can see that the number of listed firms in Australia covered by Orbis is 1,840 firms.

Please note that we only choose firms that are still listed as of the time we access the databases. If we want also covers unlisted firms, for instance to avoid survival bias, we may also click Formerly publicly listed companies to cover delisted firms. If a country has two or more stock exchanges, we may need to choose one or some stock exchanges by clicking Stock data and Stock exchange, as shown below.

Because we are only interested at non-finance firms, our next step is to exclude finance firms from our sample by clicking Industry and Industry classifications:
Please be aware that industry classifications are different from country to country. Orbis have five different industry classifications: NACE Rev.2, NAICS 2007, US SIC, NACE Rev. 2 main sections and BvD major sections. We leave the definitions of each of them for you to explore.

Now, let’s say we would like to use BvD major sector, and define finance firms as Banks and Insurance companies. Tick all sectors except the two sectors and click OK.
Our final sample now consists of **1,744 non finance firms**:

After clicking **View list of results**, we will see:

We see that the Orbis shows the **default** result of our search i.e. non-finance listed Australian firms. Here it shows **company name**, **country ISO code**, **NACE rev. 2 core code**, **cons. code**, **last avail. year**, **operating revenue**, **number of employees**, **BoD indep. indic**, and
**GUO name.** Of these variables, we only need company name and last avail. year. We may delete unused variables by clicking icon X (removing the columns) or keep them by doing nothing. We can also add more columns by clicking Add.

In fact, clicking **Add** may be the most important steps to choose the variables we need.

After clicking **Add**, we will see:

From here we invite you to fully explore all **Options** available to identify data you may need. We can also delete the columns as mentioned above by unticking in **Your Selection**. Let’s untick all boxes.
In our case, variables we need to download are industry, stock price, dividend payment, ROA and total assets.

Let’s start from **industry** data. Click **Industry & activities, Industry classification** and tick **BvD major section**. We can see that BvD major section now exists under **Variables in Your Selection**. This indicates we have selected the industry data to download.

Now select **stock price** data. Click **Stock data** and **Annual stock data**:
After clicking Market price – year end, we will see the screen below.

Click **Absolute years**, then tick 2012, 2011, ..., 2007. Click also **original currency**, or equivalently we also can tick AUD and untick USD. Exchange rate that is used is at each closing date. Note that we also add 2007 even though our sample period is 2008-2012; this is because we need stock price in 2007 to calculate return in 2008.

Click **OK**, and now the **stock price data** has been selected, together with BvD major sector. Note that if you also see Market price | Lastest avail. year under Variables, that happens because you have not unticked Last avail. year in Relative years before we click Absolute years.
Now, search for ordinary dividends and select it. We can find ordinary dividends under Financial data, Detailed Format, Profit & loss account:

Again we click Absolute periods and tick 2012, ..., 2008. Tick original currency (or tick AUD and untick USD), tick thousand under Unit (it is up to you to choose the unit you like; here we choose thousand), and tick at each closing date under Exchange rate. Click OK.
Next, ROA can be found under **Financial data**, **Global ratios**, **Industry companies**. Choose **ROA using Net income (%)**. Note that ROA is measured as a percentage, so now we only need to choose years, not currency, unit and exchange rate.

Finally, total assets can be found under **Financial data**, **Key financial & employees**. Do the same things as before, to get:
Check again if all variables we need are already under Variables; or we can modify them if necessary. In our case, we need to untick ROA using Net Income | latest avail. yr. If everything is ok as we need, click OK.

Here are the final results we need. Oops- not exactly final actually, but very close to get there. Some notes here:

1. There are 1,744 non finance firms in our sample. We can see that the display below is only the first of 70 screens. We can scroll down to check this.
2. There are 22 columns for all variables (1 for industry, 6 for stock prices, 5 for each dividends, ROA, and assets). We can scroll to the right to check this.
3. We can save the search strategy by clicking Save. Search strategy is the options we set to define our sample i.e. non finance Australian listed public firms.
4. We can save or export the result into a Microsoft Excel file by clicking Export.
This screen will appear after we click **Export**:

Say, keep the parameters as they are. The most important is we select an Excel file (*.xls) as a selected format. We can change the name of file if we wish. Click **OK**.

Then, well, be patient....
Click Save File or Open with... You must be familiar with both options. If we choose Open with, then an Excel file will show up as follows:
There are two worksheets. The first worksheet, as shown above, is named Search strategy. This describes the strategy we set to decide our sample. The second worksheet contains the most important thing, i.e. the results.

The Results worksheet is shown below:

This final result does not exactly have the same format as we set at the beginning (see below), but it exactly contains the data we need.
Some final notes:

1. We will see that many variables contain n.a., which means 'not available'.

2. Orbis only provides the last 10 years of data. Orisis database (a sister/brother of Orbis) is designed to handle data more than 10 years, but VU does not subscribe Orisis.

3. We can utilize Datastream Professional available at VU library to download data more than 10 years.

Hopefully this guide is helpful.

Good luck.