Graphics and Exportation in Matlab

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Exporting Estimation Results

- Exporting estimation results from Matlab to Excel or LaTeX is unfortunately not so straightforward
- This is mostly due to Matlab's inability to simultaneously store numbers and characters in a matrix
- We'll go through the pros and cons to each method

Matlab to Excel (method 1)

- Create a matrix that concatenates results
- e.g. `results = [beta std_err beta./std_err];`
- After estimation has completed, open the matrix "results" in the workspace, and copy and paste it into Excel
- Pro: Very user friendly and quick
- Con: Not reproducible, so if you need to re-run the estimation, you also will need to re-copy and paste

Matlab to Excel (method 2)

- Create the results matrix as in the previous slide
- Use `xlswrite` to create a spreadsheet of the results matrix
- Edit it further in Excel if needed
- Pro: Can do this in batch mode
- Con: Need to do a bit of editing on the Excel side (inconvenient when specification changes)

Matlab to LaTeX (method 1)

- Download `matrix2latex` on the Matlab file exchange
- Save the results matrix as a LaTeX matrix
- Input it into your tex file
- Pro: This function does the LaTeX formatting for you
- Con: variable names are not included in the results matrix, so you need to find a way to incorporate these

Matlab to LaTeX (method 2)

- Use `fprintf` to code the raw LaTeX version of your results table, variable names and all
- Pro: All LaTeX source code is right in front of you
- Con: More work if you decide to change the estimation specification (since you now need to change the LaTeX formatted table)

Other ways of formatting

- Create a cell array that has variable names in it already
- Create another cell array with column headers
- Create another cell array with numerical estimation results
- Concatenate these cell arrays into a readable array of strings and numbers
- Export this to Excel or LaTeX in the ways previously discussed
- Pro: Cell array looks exactly how you want it to
- Cons: variable names have quotes around them; a few extra lines of code to form the cell array

Other ways of formatting

- Use `mprint` (user-created Matlab function) to print the results
- Pro: results look like Stata output
- Con: can't get it into LaTeX very easily since it's formatted as plain text

Converting Excel to LaTeX

- There is an Excel utility called excel2latex which will convert any subset of an Excel spreadsheet into a LaTeX table
- It works quite well and is something I have used extensively