Problem Set 5

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**Part 1: Business Cycle Variation**

1. The table below displays the average returns on RMRF, SML, HML, and UMD during recessions only. This tells me that the portfolio

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Portfolio | RMRF | SML | HML | UMD |
| Average return (%) | -0.0476 | 0.0540 | 0.1992 | 0.2278 |

1. The table below displays the average returns on the smallest growth, smallest value, largest growth, and largest value during recessions only.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Portfolio | Smallest Growth | Smallest Value | Largest Growth | Largest Value |
| Average return (%) | -0.6477 | -0.3248 | 0.3838 | -0.0790 |

**Part 2: Characteristics vs. Covariances**

* **25 Size and BE/ME portfolios**