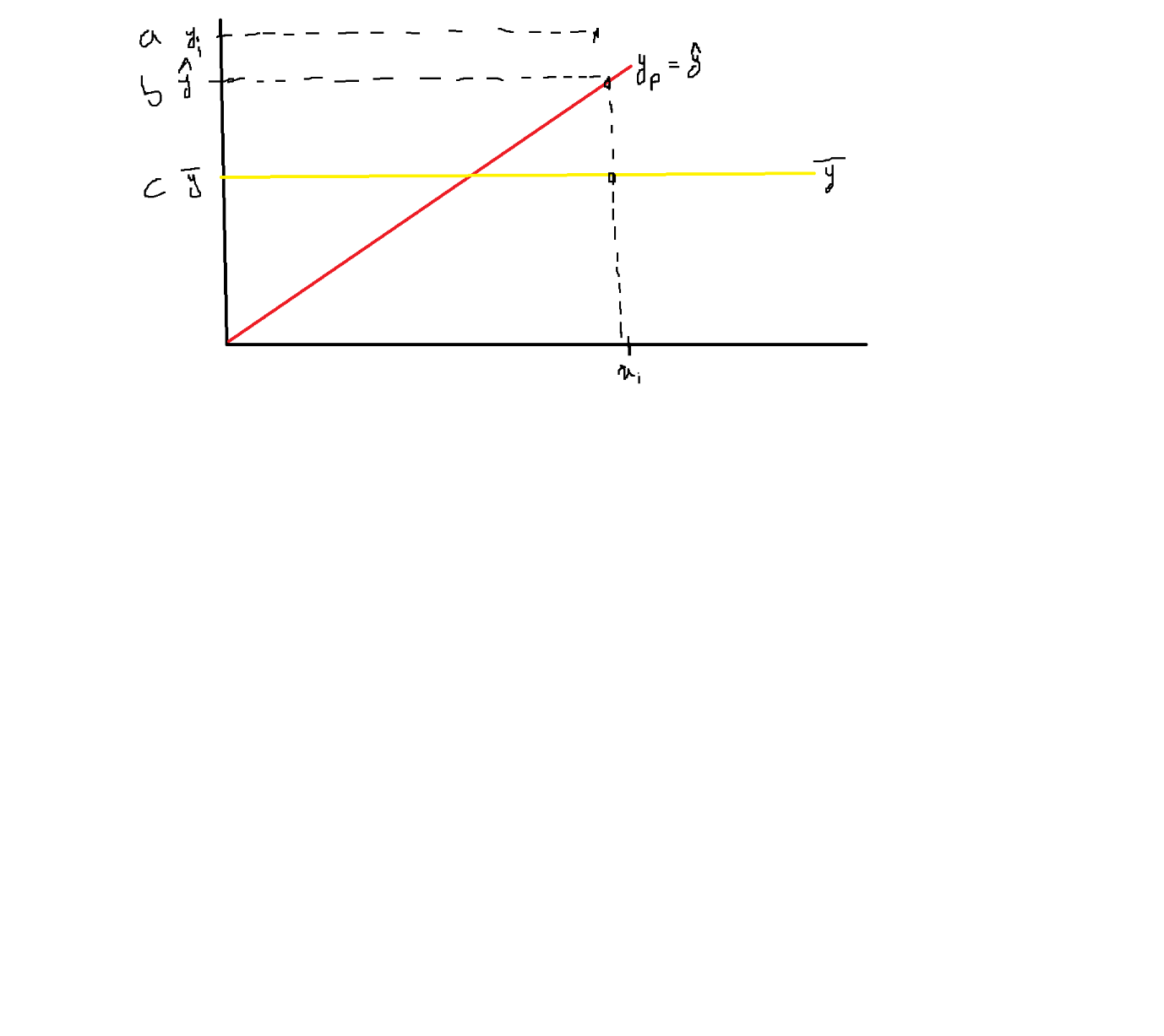
Linear regression:

1. Definition of Linear regression
2. Linear regression formulae
3. Simple and multiple linear regression
4. Goal: Identify suitable coeff in order reduce the error
5. Error - SSE – MSE – RMSE
6. Loss and Cost
7. We find coeff formulae , OLS
8. Interpretation
9. What is the meaning of bo and b1
10. RSE : average deviation from true regression line



| X | Y | Y\_p= 0.143+1.229x | Residual | Square of residual |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 2 | 2 | 2.601 | 2-2.601=-0.601 | 0.361201 | 4.75 | 2-4.75=-2.75 | 7.5645 |
| 3 | 4 | 3.83 | 4-3.83=0.17 | 0.0289 | 4.75 | 4-4.75=-0.75 | 0.5625 |
| 4 | 6 | 5.059 | 6-5.059=0.941 | 0.885481 | 4.75 | 6-4.75=1.25 | 1.5625 |
| 6 | 7 | 7.517 | 7-7.517=-0.517 | 0.2672 | 4.75 | 7-4.75=2.25 | 5.0625 |
|  |  |  | SSR= | 1.542871 |  |  | 14.75 |