ARIMBI 2018

Optimization Problem

1. Domestic Country
2. Household

|  |  |  |
| --- | --- | --- |
|  |  | () |

where

|  |  |  |
| --- | --- | --- |
|  |  | () |

subject to:

|  |  |  |
| --- | --- | --- |
|  |  | () |
|  |  | () |

Lagrange function:

|  |  |  |
| --- | --- | --- |
|  |  | () |
|  |  | () |

or rewrite as

|  |  |  |
| --- | --- | --- |
|  |  | () |

|  |  |  |
| --- | --- | --- |
|  |  | () |

Combine with (7) yields:

|  |  |  |
| --- | --- | --- |
|  |  | () |

|  |  |  |
| --- | --- | --- |
|  |  | () |

|  |  |  |
| --- | --- | --- |
|  |  | () |

Combining (7), (10), and (11) yields:

|  |  |  |
| --- | --- | --- |
|  |  | () |
|  |  | () |