Map Based Default Parameter Structure

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Call Function with Default Parameters

Call function below without overriding

```
ff_defaultmap()
```

```
ans = 1×5 cell array
    {'fl_b_bd'}    {'fl_kp_min'}    {'fl_w_max'}    {'it_kb_j'}    {'it_w_i'}
ans = 1×5 cell array
    {[-3]}    {[0]}    {[50]}    {[100]}    {[100]}
ans = 1×2 cell array
    {'bl_display'}    {'bl_graph'}
ans = 1×2 cell array
    {[0]}    {[0]}
```

Call Function overriding some Parameters

```
param_map = containers.Map('KeyType','char', 'ValueType','any');
param_map('fl_w_max') = 1.11;
param_map('it_w_i') = 2.22;

support_map = containers.Map('KeyType','char', 'ValueType','any');
support_map('bl_display') = true;
ff_defaultmap(param_map, support_map)
```

```
ans = 1×5 cell array
    {'fl_b_bd'}    {'fl_kp_min'}    {'fl_w_max'}    {'it_kb_j'}    {'it_w_i'}
ans = 1×5 cell array
    {[-3]}    {[0]}    {[1.1100]}    {[100]}    {[2.2200]}
ans = 1×2 cell array
    {'bl_display'}    {'bl_graph'}
ans = 1×2 cell array
    {[1]}    {[0]}
```

Function with Map Defaults and Overriding

This default parameter style is fairly succinct, allows for program testability, and easy adjustments/addition of additional parameters to models.

```
function ff_defaultmap(varargin)

params_len = length(varargin);
if params_len > 2
    error('ff_defaultmap:Can only have 2 container map parameters');
end

% Defaults
param_map = containers.Map('KeyType','char', 'ValueType','any');
param_map('fl_b_bd') = -3;
param_map('fl_kp_min') = 0;
param_map('fl_w_max') = 50;
```

```matlab
    param_map('it_kb_j') = 100;
    param_map('it_w_i') = 100;

    support_map = containers.Map('KeyType','char', 'ValueType','any');
    support_map('bl_display') = false;
    support_map('bl_graph') = false;

    default_maps = {param_map, support_map};

    % Parse Parameters
    % see: C:\Users\fan\M4Econ\support\dtype\map_override.m
    [default_maps{1:params_len}] = varargin{:};
    param_map = [param_map; default_maps{1}];
    support_map = [support_map; default_maps{2}];

    % Display
    param_map.keys
    param_map.values

    support_map.keys
    support_map.values

end
```