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////////////////////////////////////  
// Basic linear RE model - Learning Dynare: Forward looking models  
// Prof. Marcelo Arbex (Uwindsor)  
////////////////////////////////////
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```
//  
// Basic linear RE model  
//  
var y,x; // Name of the variable
```

```
varexo e; // Name of the exogenous variable
```

```
parameters a,b,rho,se; // Parameters of the model  
rho = 0.95;  
se = 0.02;  
a = 0.8;  
b = 1;
```

```
// Equations of the model  
model;  
y = a*y(+1)+b*x;  
x = rho*x(-1)+e;  
end;
```

```
initval;  
e=0;  
x=0;  
y=0;  
end;  
steady;
```

```
// Checking Dynamic Properties  
check;
```

```
// Declaring the shocks  
shocks;  
var e; stderr se;  
end;
```

```
// Launch solving procedure  
stoch_simul(linear,irf=20,relative_irf);
```