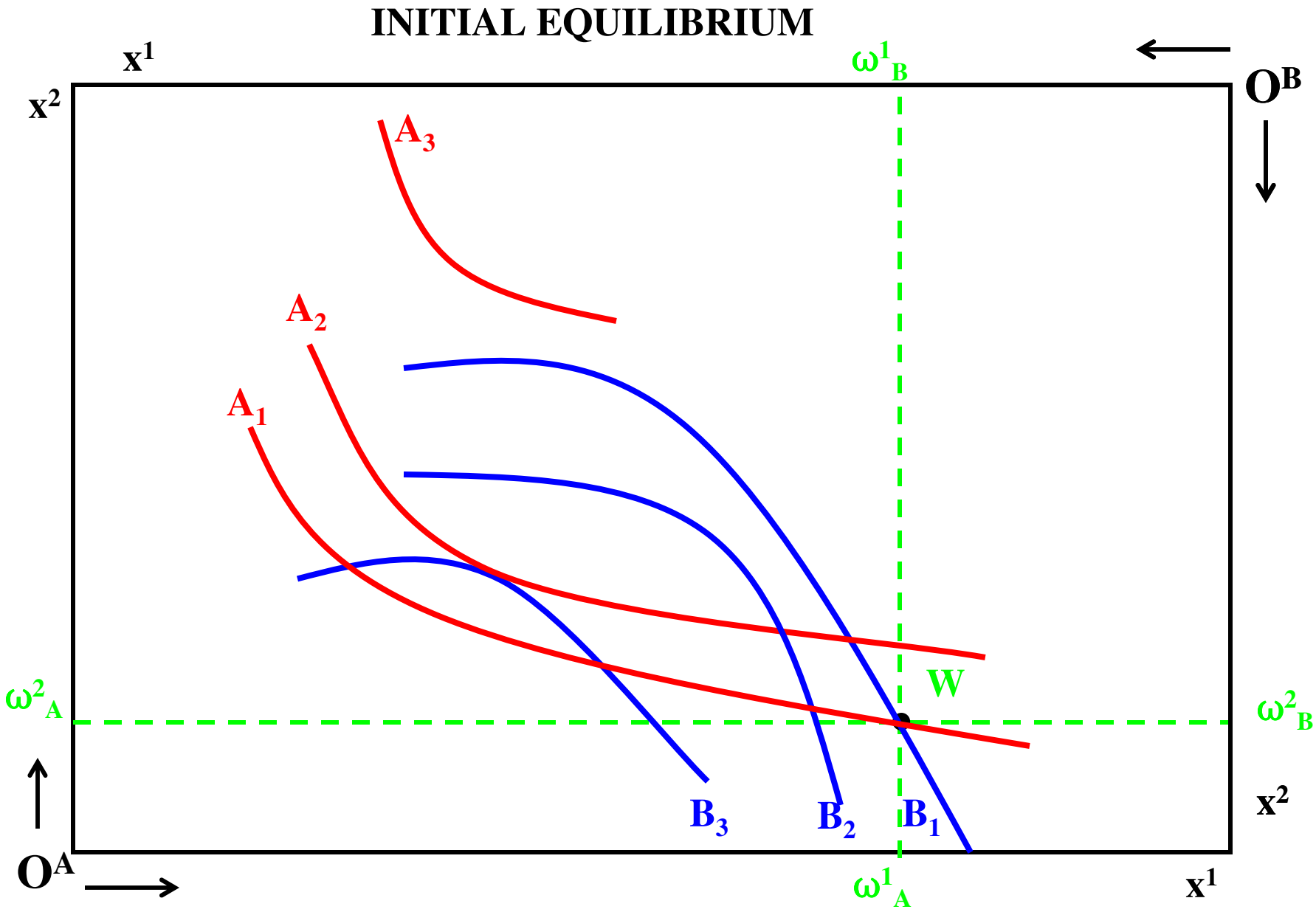
AE 503

COMPETITIVE EQUILIBRIUM

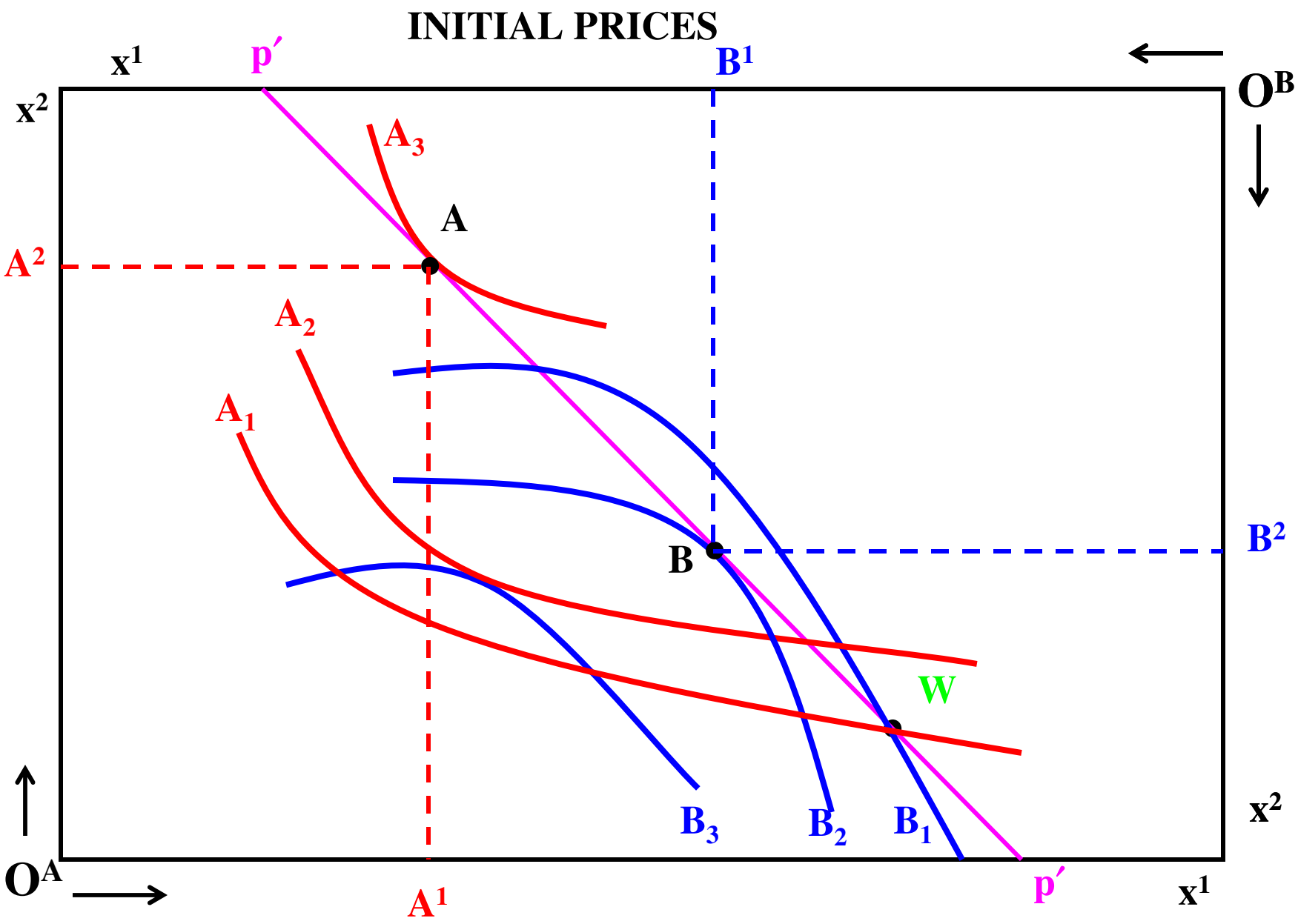
Professor Ian Sheldon

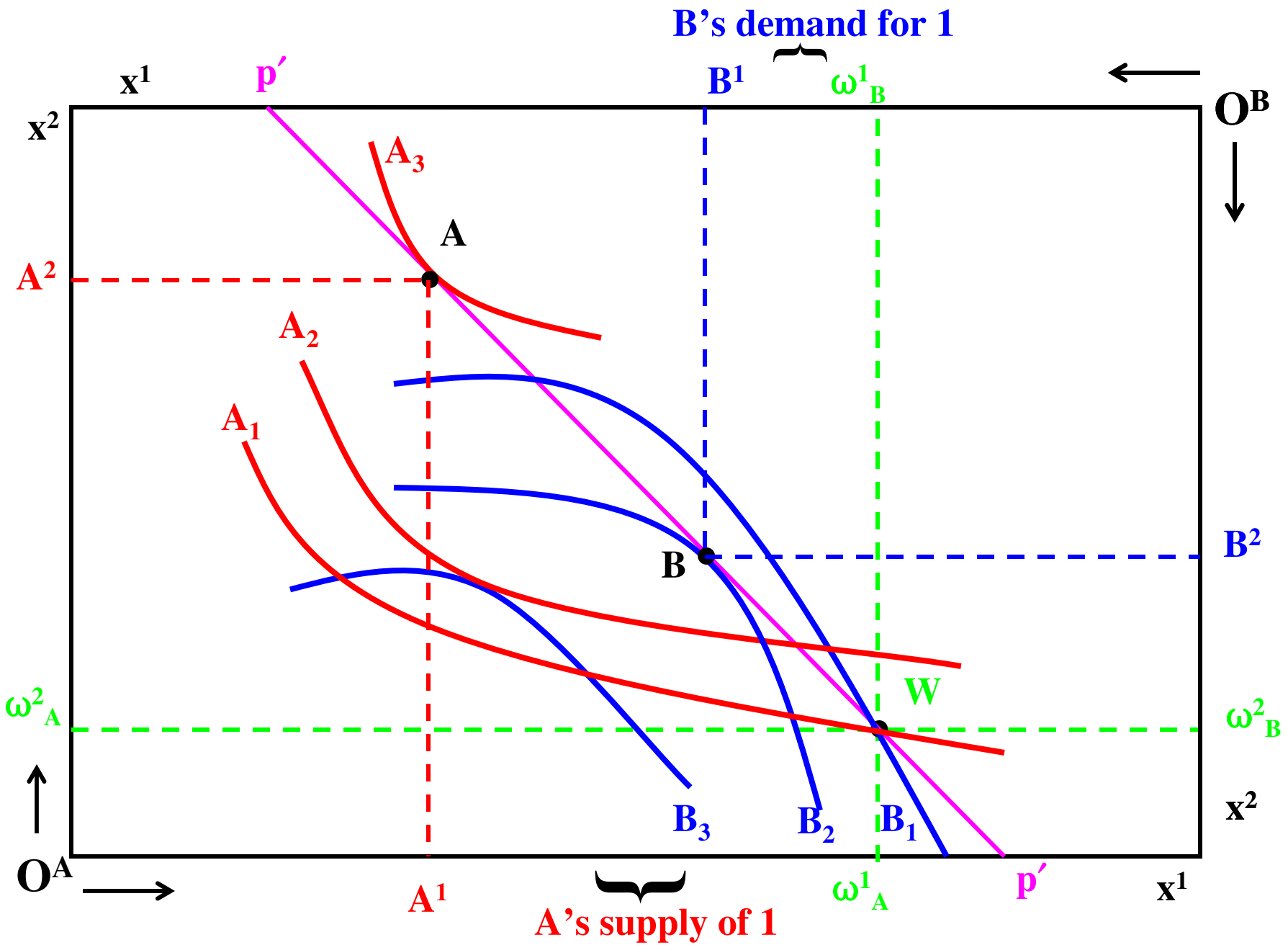

INITIAL EQUILIBRIUM
x1
x2
ω1B
OB
A3
A2
A1
W
ω2A
ω2B
B3
B2
B1
x2
OA
ω1A
x1

- Suppose an "auctioneer" calls out prices of fruit and fish

- The first set of prices is given by the budget line $p'p'$ which has a slope of $-(p^1/p^2)$

- At these prices:
  - Consumer A is in equilibrium at point A
  - Consumer B is in equilibrium at point B
  - A's supply of good 1 > B's demand for good 1
  - A's demand for good 2 > B's supply of good 2

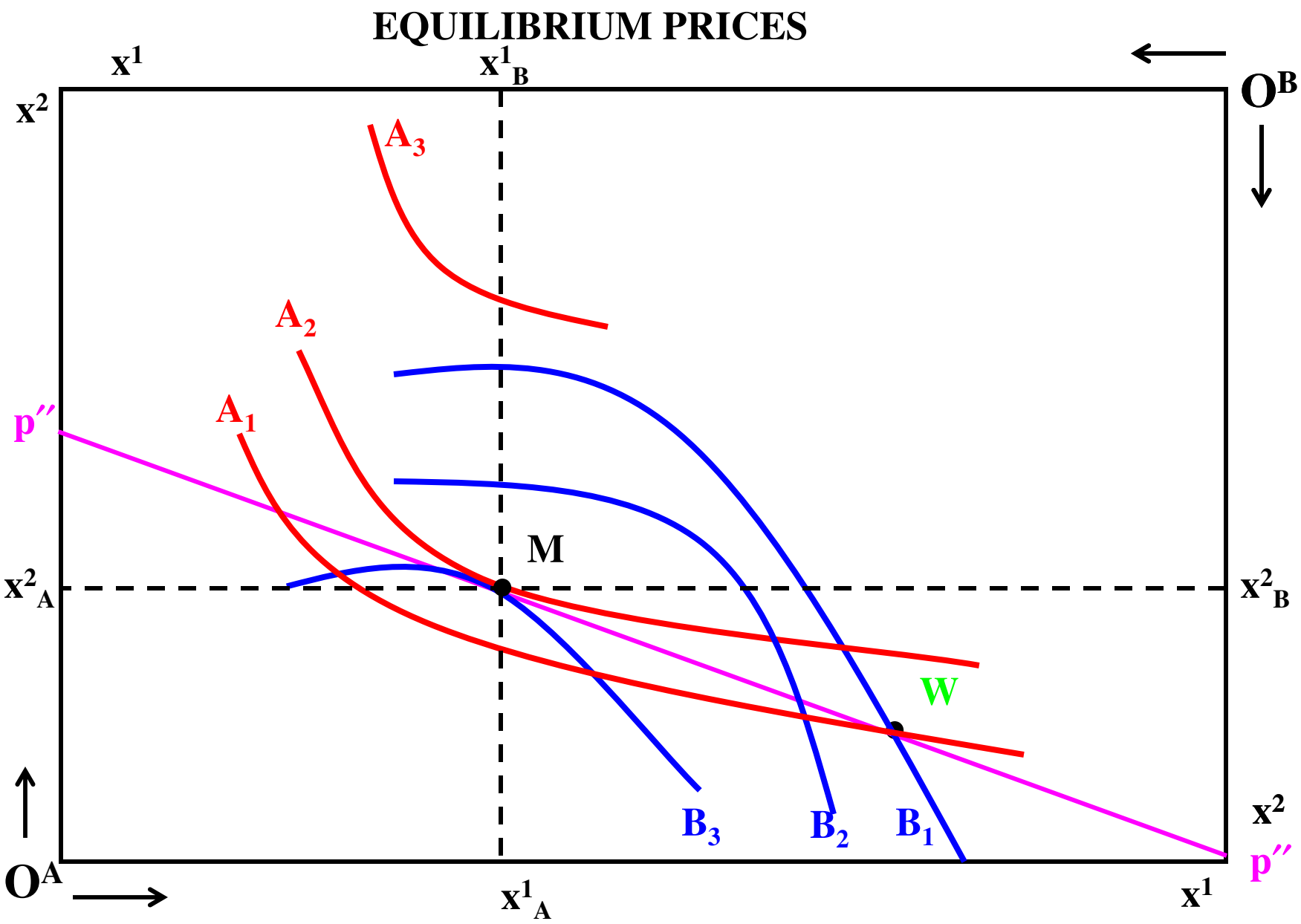

INITIAL PRICES
x1
p′
B1
OB
x2
A3
A
A2
A2
A1
B2
B
W
B3
B2
B1
x2
OA
A1
p′
x1

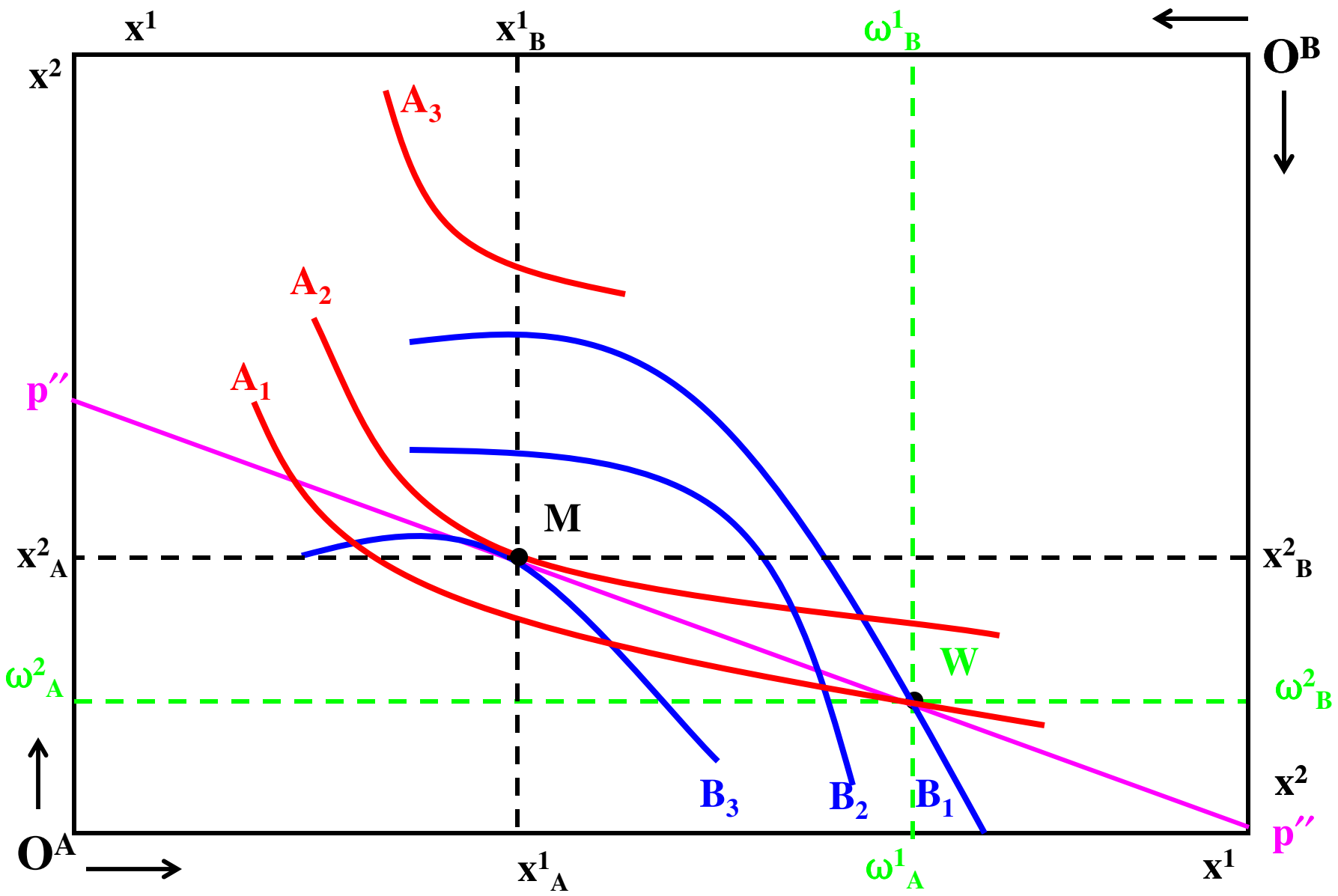

B's demand for 1
x1
p′
B1
ω1B
OB
x2
A3
A
A2
A2
A1
B2
B
W
ω2A
ω2B
x2
B3
B2
B1
OA
A1
A's supply of 1
ω1A
p′
x1

- **For competitive equilibrium:**
  - ☞ **price of fruit p^1 must fall**
  - ☞ **price of fish p^2 must rise**

- **The equilibrium set of prices is given by the budget line $p''p''$, whose slope is less than $p'p'$**

- **The competitive equilibrium is at point M where:**
  - ☞ $-(p^1/p^2) = MRS^A_{1,2} = MRS^B_{1,2}$
  - ☞ **Demand and supply of good 1 are equal**
  - ☞ **Demand and supply of good 2 are equal**


EQUILIBRIUM PRICES
x1
x1B
x2
OB
A3
A2
A1
p″
M
x2A
x2B
W
B3
B2
B1
x2
p″
OA
x1A
x1


x1
x1B
ω1B
OB
x2
A3
A2
A1
p″
M
x2A
x2B
ω2A
W
ω2B
B3
B2
B1
x2
p″
OA
x1A
ω1A
x1