

## EU Economic Recovery Plan

### Fractional Reserve Analysis with 8% Basel II Reserve Requirement (Example)

#### (b) No Financial Intermediary to 8% Basel II Reserve Requirement

##### No Financial Intermediary Analysis

When no financial intermediary is involved, intermediation must be real direct asset lending. In this example, Farmer B as Intermediary lends Farmer A a tractor to use for €500. Farmer A rents the tractor from Farmer B and grows a crop which is sold. In this system €1,500 of wealth is created from crop sale split €1,000 to Farmer A and €500 to Farmer B for use of the tractor with financial intermediary not participating at €0.

| I. No Financial Intermediary (Real Asset Tractor Lending) |          |          |              |         |              |
|---|----------|----------|--------------|---------|--------------|
|   | Farmer A | Farmer B | Intermediary | Total   |              |
| Start (Cash)  | € 480    | € 480    | € 40         | € 1,000 | Begin Cash   |
| Tractor Rent  | (€ 500)  | € 500    |              | € 0     |              |
| Sell Crop   | € 1,500  |          |              | € 1,500 |              |
| End (Cash)  | € 1,480  | € 980    | € 40         | € 2,500 | End Cash     |
| Direct Net Earnings                                       | € 1,000  | € 500    | € 0          | € 1,500 | Earnings (€) |
| % Earnings  | 66.67%   | 33.33%   | 0.00%        | 100.0%  | Earnings (%) |

| II. With 8% Reserve Financial Intermediation Added ( 8% Real Backing)                           |          |          |              |         |                |
|---|----------|----------|--------------|---------|----------------|
|   | Farmer A | Farmer B | Intermediary | Total   |                |
| Start (Cash)  | € 480    | € 480    | € 40         | € 1,000 | Begin Cash     |
| Direct Net Earnings(Above)  | € 1,000  | € 500    | € 0          | € 1,500 |                |
| Loan  | € 500    |          | € 500        | € 500   |                |
| Loan Interest   | (€ 25)   |          | € 25         | € 0     |                |
| Pay Back Loan   | (€ 500)  |          | € 500        | € 0     |                |
| End (Cash)  | € 1,455  | € 980    | € 525        | € 2,960 | End Cash       |
| Net Earnings  | € 975    | € 500    | € 485        | € 1,960 | Earnings (€)   |
| % Earnings  | 49.74%   | 25.51%   | 24.74%       | 100.0%  | Earnings (%)   |
| Wealth Transfer=(Principal+Interest) x (1- RR). Inflation is Principal portion wealth transfer. |          |          |              | 18.4%   | Inflation Cash |

| 8% Fractional Reserve Requirement Financial Intermediation/Wealth Transfer Impact                               |                  |                    |             |               |                 |              |
|---|------------------|--------------------|-------------|---------------|-----------------|--------------|
|   | (A)=(a) x (1-RR) | (B)= Item x (1-RR) | = (1 - RR)  | (C)=Item x RR | (D) = (B) + (C) |              |
| Item  | Item \$ Amount   | Inflation          | \$ Unearned | % Unearned    | \$ Earned       | Total Return |
| Loan Principal (a)  | € 500.00         | € 460.00           | € 460.00    | 92.0%         |                 | € 460.00     |
| Interest (Loan(a) x (c))  | € 25.00          |                    | € 23.00     | 92.0%         | € 2.00          | € 25.00      |
| Total   | € 525.00         | € 460.00           | € 483.00    | 92.0%         | € 2.00          | € 485.00     |
| <b>Wealth Transfer (Unearned Return = <math>\sum(B)</math>)</b>   |                  |                    |             |               |                 | € 483.00     |
| <b>Financial Intermediation Unearned Return % (Unearned Return/Total Return = <math>\sum(B)/\sum(D)</math>)</b> |                  |                    |             |               |                 | 99.6%        |
| <b>Intermediary Return on €40 Required Reserve Investment (Total Return/Start Cash)</b>                         |                  |                    |             |               |                 | 1212.5%      |
| <b>Earned Financial Intermediation (Interest x Reserve Requirement = <math>\sum(C)</math>)</b>                  |                  |                    |             |               |                 | € 2.00       |
| <b>Earned Financial Intermediation % of Total Return of €485 (Earned Return/Total Return)</b>                   |                  |                    |             |               |                 | 0.4%         |

##### 8% Fractional Reserve Financial Intermediation Analysis

In this 8% fractional reserve system the Financial Intermediary adds a €500 loan into the system 92% (1-reserve requirement) backed by no real or financial assets, increasing fractional reserve returns by €460 to €1,960 from the sale of the exact same crop now split €975 to Farmer A, €500 to Farmer B and €485 to the intermediary that added 8% real credit. Farmer A pays back a €500 loan and pays interest of €25 for 8% (€40) of true credit intermediation. In the real world Farmer A would not borrow money this way unless he thought he was getting something, in this case Farmer A might take this type of loan to maintain some liquidity during the growing period before crop harvest. The Financial Intermediary loan captures 24.74% of the system earnings in the form of inflation and interest in a 92% direct transfer of wealth since the same crop is produced.

##### Fractional Reserve Intermediation Analysis

In this system Wealth Transfer is (Loan Principal + Interest) x (1- Reserve Requirement). Inflation is Principal portion of wealth transfer. In a 0% reserve system 100% of the loan repayment results in inflation with interest payments as direct wealth transfer without added inflation. In a 100% reserve system there is no inflationary wealth transfer and 100% of the interest earned is true credit intermediation.

##### Assumptions

|                              |         |
|------------------------------|---------|
| Initial System Cash          | € 1,000 |
| Tractor Rent \$              | € 500   |
| Crop Sale Price              | € 1,500 |
| (a)-Loan Amount \$           | € 500   |
| (b)-Reserve Requirement (RR) | 8.00%   |
| (c)-Interest Rate            | 5.00%   |