The Accidental Redistribution of Seignorage Wealth in the Eurosystem

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The European Monetary Union (EMU) socialises not only the good will and esteem that the national currencies have acquired but also the seignorage profit which the central banks earn by lending their money to the private sector at the market rate of interest. Throughout their histories central banks have accumulated interest-bearing assets step by step with the expansion of their respective monetary bases which has followed the growth of the economies. These assets, which total EUR 352 billion in the euro-11 countries, are stocks of "historic" seignorage wealth which will generate an eternal, annual stream of returns that will help finance government budgets. By 1 January 2002, the seignorage wealth of participating countries will be brought into, and socialised by, the currency union. The basic mechanism of this redistribution was noted in Remsperger (1996), and it was studied extensively in Sinn and Feist (1997, 2000) as well as in Gros (1998). Here, final calculation results for the case of a Eurosystem containing Greece are presented for the first time.

Country Size and Seignorage Wealth

It is not easy to understand why central bank money is seignorage wealth, because accounting practices blur the picture. The currency issued by a central bank is listed on the liability side of its balance sheet, and the assets obtained in exchange for the currency are listed on the asset side. From an accounting perspective, money creation does not generate wealth at a central bank because both sides of the bank's balance sheet grow simultaneously without generating any differential equity capital.[1]

However, while the central bank does not pay interest on the currency it issued, it collects interest on the assets obtained in exchange. The return on the assets backing the outstanding stock of currency is seignorage profit, and these assets constitute seignorage wealth. Seignorage wealth is net wealth of the central bank because the stock of outstanding currency will never have to be serviced with interest or redemption payments. Under EMU, the socialisation of historic seignorage wealth accumulated in the process of money creation over time will not occur in a legal sense. Only the future interest income generated by this wealth will be pooled within the Eurosystem, and the national central banks remain the legal owners of the assets backing the monetary base. However, from an economic point of view, the eternal socialisation of an asset's return is the same as the socialisation of the asset itself. Thus, in economic terms, there will indeed be a once and for all socialisation of current central bank assets worth EUR 352 billion in about a year from now.

The socialisation involves an effective net redistribution among the participating countries because the interest income received by a country may differ from what this country contributes. A country's share in the interest contribution to the pool depends on its share in the joint currency. However, the share in the interest which a country receives from the pool depends on its share in the capital contributed to the European Central Bank (ECB), which in turn is given by the average of this country's population and GDP shares. Apart from establishing a stake in the seignorage profit, a country's contribution to the ECB equity capital has little more than a symbolic function. At just EUR 5 billion, the total capital endowment is tiny relative to the EUR 352 billion stock of interest-bearing assets contributed in the form of seignorage wealth. It does not involve any resource cost for the contributing countries because the interest it generates for the ECB will be distributed in proportion to the capital endowment. The share in the equity capital does not really present a contribution, but rather the right to participate in the profit distribution of the ECB.

Redistribution of Seignorage Wealth through EMU

If the capital keys happened to match the pre-euro distribution of seignorage wealth across the European countries, there would be no effective redistribution of seignorage wealth. However, this

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[1] Indeed, this accounting custom may be the reason why the signing parties did not really understand that they were redistributing existing wealth when they founded the currency union.

Winners and Losers from the Redistribution of Seignorage Wealth

	Seignorage wealth contributed EUR bn [1]	Seignorage wealth contributed share % [2]	Seignorage wealth received EUR bn [3]	Seignorage wealth received share % [4]	Gain or loss total EUR bn [5]	Gain or loss per capita EUR [6]
Austria	12.3	3.4	10.5	2.9	– 1.9	– 230
Belgium	12.5	3.5	12.7	3.5	+ 0.2	+ 16
Finland	3.0	0.8	6.2	1.7	+ 3.2	+ 627
France	43.8	12.2	74.6	20.8	+ 30.9	+ 527
Germany	138.6	38.6	108.6	30.2	– 30.0	– 366
Greece	6.9	1.9	9.1	2.5	+ 2.2	+ 209
Ireland	3.4	1.0	3.8	1.0	+ 0.3	+ 91
Italy	64.5	18.0	66.0	18.4	+ 1.5	+ 26
Luxembourg	0.1	0.0	0.7	0.2	+ 0.5	+ 1 309
Netherlands	18.6	5.2	19.0	5.3	+ 0.4	+ 26
Portugal	4.6	1.3	8.5	2.4	+ 3.9	+ 396
Spain	50.7	14.1	39.4	11.0	– 11.3	– 287
Total	359.0	100.0	359.0	100.0	0.0	–

Note: Share of ECB capital as of 1 January 1999; monetary, exchange rate and population data as of 31 December 1998.

Sources: European Central Bank (1998): Key for the ECB's Capital, Press Release. 1 December, Frankfurt; International Monetary Fund (2000): International Financial Statistics, March. Washington. D.C., Statistisches Bundesamt (2000): Statistisches Jahrbuch für das Ausland, Metzler-Poeschel: Stuttgart, p. 40.

is not the case. In fact, a unit of capital carries very different amounts of seignorage wealth depending on where it comes from. The implications for the redistribution of seignorage wealth are summarised in the table which refers to the situation of 1 January 1999.

Columns [1] and [2] show the absolute and relative amounts of seignorage wealth contributed to the pool, and columns [3] and [4] show the absolute and relative amounts received from the pool. A comparison of columns [2] and [4] reveals that some countries contribute more and receive less than others. Germany, for example, contributes 39% and receives 31% of seignorage wealth, whereas France contributes 12% and receives 21%.

The most interesting information is contained in columns [5] and [6]. They show the different countries' absolute gains and losses and the respective per capita amounts. Obviously, France is the big winner and Germany the big loser of the redistribution of seignorage wealth. While the French contributions amount to EUR 43.8 billion and the payments received to EUR 74.6 billion, resulting in a gain of EUR 30.9 billion, the German loss is EUR 30.0 billion. In per capita terms, the average French citizen will gain EUR 527 or FF 3,460, and the average German will lose EUR 366 or DEM 716.

Next to Germany, Spain loses most with EUR 11.3 billion in total which is EUR 287 or ESP 47,867 per capita. Austria is the only further loser with EUR 1.9 billion in total and EUR 230 or ATS 3,158 per capita. The majority of countries are winners: Portugal, Finland, Greece, Italy, Luxembourg, the Netherlands, Ireland, and Belgium, in the order of their absolute gains. A citizen of Luxembourg gains most, with EUR 1,309 or BEF 52,811, followed by a Finn with EUR 627 or FIM 3,726.

There are a number of reasons for the imbalance between country size and seignorage wealth, and the resulting redistribution. First of all, the German figure is so high not only because Germany is the largest country, but also because the deutschmark is an important international transactions and reserve currency, taking second place only to the dollar.[2] The fall of the Iron Curtain, the traditional strength of the German export industries, and the conservative monetary policy of the Bundesbank have all contributed to the dominant role of the deutschmark. The high figures for the Spanish seignorage wealth can partly be explained by the importance of the Spanish overseas connections, and partly by the large share of the Spanish shadow economy, where cash rather than bank transfers are used as a means of payment.[3] The low share of seignorage wealth contributed by France may be attributed to the fact that the French franc is not used much outside that country, and possibly also to a well-developed banking sector and advanced payment habits.

Understanding the Results

The figures refer to the wealth equivalents of the redistribution of that part of the seignorage profit which can be attributed to the assets that the central banks had accumulated before 1 January 1999. There are a few things to bear in mind for a proper understanding of the results.

[2] See Rogoff (1998).
[3] According to Schneider and Ernste (2000), the Spanish share in GDP of black market activities is about 23%, while the figure for Germany is only 14%.

Firstly, the figures measure the once-and-for-all redistribution effect and do not refer to annual gains and losses. In principle, the annual gains and losses can be calculated by multiplying the figures given in column five of the table with a market rate of interest, but since it is not clear what the future rate will be, such a calculation would involve a good deal of guesswork. A wealth-based calculation is free from such arbitrariness. We realise that the Maastricht Treaty does not formally socialise the assets backing the monetary base, but only their interest, but we maintain that, from an economic perspective, this is the same as a socialisation of the assets themselves.

Secondly, we equate seignorage wealth with a country's monetary base with the exception of minimum reserves which private banks hold with the ECB. As the ECB pays interest on these reserves, they do not constitute a net wealth for the ECB, and are therefore not included in our calculations. We neglect the role of coins, which represent a very small fraction of a country's monetary base, because we do not have a comprehensive data set that would allow a comparison to be made. The interest generated by assets backing the coins is not subject to redistribution under the Maastricht rules.

Thirdly, the figures do not include the present value of future increments in seignorage wealth which would have occurred in the course of a continued growth process, had the euro not been introduced. They neither include the present value of additional future increments in seignorage wealth, if any, which might result from a particular attractiveness of the euro as an international transactions and reserve currency. The proper distribution of gains or losses through these increments is a different question not addressed here. The above calculations relate to historic seignorage wealth only, and raise the question of whether the countries adopting the euro really wanted to effect the gigantic redistribution of claims on existing assets.

How to Resolve the Problem

The redistribution of historic seignorage wealth is implied, though not openly spelled out, by Article 32 of the Protocol No. 18 (ex No. 3) on the Statute of the European System of Central Banks and of the ECB of the Maastricht Treaty. It seems fair to say that it was not understood and foreseen by the parties signing the Treaty. Politicians realised what they had signed only after the above-mentioned studies were published. The reaction was to postpone the start of the redistribution process by three years to clarify the matter, using transitional provisions as specified in Article 32.3. Redistribution of seignorage will only take place on a large scale from 1 January 2002 onwards, when the so-called "earmarking method," which is reflected in the calculations presented here, will become effective. There is no agreement yet on the exact and final provisions concerning the redistribution process.[4]

Sinn and Feist (1997) as well as Gros (1998) suggested a grandfathering solution to the redistribution problem. The essence of this solution is to allocate the *initial* equity contributions in proportion to the magnitudes of the respective monetary bases as of 1 January 1999 and the *additional* contributions necessitated by the future growth in the joint monetary base in proportion to country size. This suggestion implies that historic seignorage wealth is exempt from redistribution, but that the increments in seignorage wealth due to the normal growth of the European economies and due to any extraordinary success of the euro are shared equally according to country size. Such a rule would probably require an amendment to the Maastricht Treaty. Given that the redistribution clauses in the Treaty were probably not understood by the signing parties, this amendment should be agreeable to the member countries.

[4] The Governing Council could still decide on a second transition period which is foreseen in Article 51 of the Statute. According to this article, the ECB Council has the right to exempt certain fractions of national seignorage income from redistribution for a period of five years. In the first year, at least 40% of the seignorage has to be redistributed according to the capital keys, and with each consecutive year this percentage has to increase by at least 12 percentage points so that the full socialisation of historic seignorage wealth would be completed by the end of the fifth year at the latest. If the Council sticks to its current timetable and then makes use of this provision, this would be 1 January 2007.

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