My understanding of the opposition by the state representatives to the inclusion of loans in the property factor of the apportionment formula is based on three factors:

1. The use of SINAA or INAA is unworkable due to the difficulty in verifying the location of these activities on audit.
2. Even if it were possible to use SINAA or INAA to locate these loans geographically, the industry method of situsing these loans to the single state with the greatest number of substantial contacts despite the possibility that significant loan generation activity may take place in many other states.
3. Inclusion of these loans in the property factor would skew the apportionment of net income to the state(s) to which the loans were sitused because the value of the loans dwarfs the value of the institutions’ physical capital.

Unfortunately, the answer to the question of whether or not to include loans and loan pools in the property factor cannot be answered by economists. There is a consensus among public finance economists that attributing the value of intangible assets to a specific location is extremely difficult. Noted public finance scholars, William Fox and Michael Kelsay, argue that states should apportion the net income of financial institutions according to the geographic distribution of receipts sitused on a destination basis only; i.e., single sales factor apportionment. Charles McLure, another noted public finance scholar, acknowledges that it is often impossible to attribute intangible assets, such as loans, to a particular location with precision. McLure, however, does not suggest that states entirely eliminate the property and payroll factors from the apportionment formula of companies with significant amounts of intangible assets.

---

1 These loans are typically grouped by classes of similar instruments, by customer base, and/or another method (including a method combining instruments and customer bases) that reflects the taxpayer’s books and records. For example, loans could be grouped as consumer loans, real property loans and commercial loans. Consumer loans could be further grouped such as into installment loans, credit card receivables, student loans, etc. In large part the grouping of loans are based on the financial institutions’ loan tracking system and/or management reporting systems.
4 Ibid.
Let us assume, for the sake of argument that the Working Group (WG) decides to keep loans in the property factor of the apportionment formula. They would then be faced with the problem of how to mitigate the bias in the state-by-state distribution of the property factor resulting from the inclusion of loans, which under the options presented so far, would attribute the location of loans to one state only. A possible solution to this problem may be found in the European Union’s attempt to harmonize their corporate income tax regimes.

Currently, the European Union is discussing the possibility of adopting a Common Consolidated Corporate Tax base (CCCTB) for all the nations comprising the European Union replacing the 27 disparate corporate income tax regimes currently in use. One of the apportionment formulas under consideration is the four (4) factor formula: sales, property, wages and salaries, and number of employees. The payroll factor in the U.S. system is divided into two components – wages and salaries and number of employees - because of the wide variation in wage rates among the nations of the European Union.

“The formula for apportioning the consolidated tax base should comprise three equally weighted factors (labour, assets and sales). The labour factor should be computed on the basis of payroll and the number of employees (each item counting for half). The asset factor should consist of all fixed tangible assets. Intangibles and financial assets should be excluded from the formula due to their mobile nature and the risks of circumventing the system. The use of these factors gives appropriate weight to the interests of the Member State of origin. Finally, sales should be taken into account in order to ensure fair participation of the Member State of destination. Those factors and weightings should ensure that profits are taxed where they are earned. As an exception to the general principle, where the outcome of the apportionment does not fairly represent the extent of business activity, a safeguard clause provides for an alternative method.”

However, this apportionment method may not be suitable for financial institution, notably banks because the major output of these institutions is an intangible asset – loans and loan pools and loan bundles. These financial assets are inherently different from tangible and other assets – buildings, land, office machines, computer software, inventories, etc. In addition to being inherently different from the physical capital and intellectual capital employed by these institutions, the financial assets dwarf the physical capital in value. I propose the five factor apportionment formula as an alternative to apportion the net income of financial institutions: sales, tangible property (including self-produced intellectual property such as computer software), financial assets such as loans and loan pools, wages and salaries, and number of employees.

The payroll factor is separated into two components – total wages and salaries and number of full-time equivalent employees for the same reason the European

---


6 The value of self-produced computer software will be distributed among the states in accordance with the distribution of tangible personal property under the assumption is that this software cannot be used in isolation – it must be used with a computer. “Cloud” computing is an issue that will have to be dealt with separately.
Commission recommends the separation of this apportionment factor – disparate levels of compensation. States with high concentrations of the more highly compensated personnel such as international, national, or regional headquarters are treated differently from states with concentrations of relatively lower compensated personnel such as processing centers, or retail branches. Similarly, the property factor is divided into two components – tangible property and loan assets in order to overcome the bias that would result if the value of the loans and loan pools were simply added to the value of tangible assets. Therefore, the separation of the property factor reduces the influence of the location of loans in the apportionment of the net income of a financial institution.

If the WG were to decide to keep financial assets of these institutions in the apportionment formula, an acceptable method, other than (S)INAA, of approximating the value of the loans and loan pools within each state must be found. Also, the EU proposes the equal weighting of the apportionment factors. The alternative apportionment formula presented here makes no restrictions regarding the weight given to each of the factors, except that the sum of the weights must equal one (1). An arithmetic exposition of the traditional three factor apportionment and the five factor apportionment method is provided below.
ARITHMETIC EXPOSITION of ALTERNATIVE APPORTIONMENT METHODS

The net income of multistate business (j) is apportioned to each state (i) in which it conducts business according to the traditional three factor apportionment formula:

\[ \Pi_{ij} = \Pi_j \{ (\alpha_i \ast (S_{ij}/S_J)) + (\beta_i \ast (L_{ij}/L_J)) + (\gamma_i \ast (P_{ij}/P_J)) \} \]

Where:
- \( \Pi_{ij} \) is the net income of company (j) apportioned to State (i).
- \( \Pi_j \) is the total net income of company (j).
- \( \alpha_i \) is the weight of the sales factor in state (i).
- \( S_{ij}/S_J \) is the ratio of sales of company (j) in state (i) to the total sales of company (j).
- \( \beta_i \) is the weight of the payroll factor in state (i).
- \( L_{ij}/L_J \) is the ratio of payroll of company (j) in state (i) to total payroll of company (j).
- \( \gamma_i \) is the weight of the property factor in state (i).
- \( P_{ij}/P_J \) is the ratio of property of company (j) in state (i) to total property of company (j).

\[ \alpha_i + \beta_i + \gamma_i = 1 \]

The net income of a financial institution (j) can be apportioned to each state (i) in which it conducts business according to the alternative five factor apportionment formula:

\[ \Pi_{ij} = \Pi_j \{ (\alpha_i \ast (S_{ij}/S_J)) + (\beta_i \ast (L_{ij}/L_J)) + (\zeta_i \ast (N_{ij}/N_J)) + (\gamma_i \ast (P_{ij}/P_J)) + \hat{\rho_i} \ast (F_{ij}/F_J) \} \]

Where:
- \( \Pi_{ij} \) is the net income of company (j) apportioned to State (i).
- \( \Pi_j \) is the total net income of company (j).
- \( \alpha_i \) is the weight of the sales factor in state (i).
- \( S_{ij}/S_J \) is the ratio of receipts of company (j) in state (i) to the total receipts of company (j).
- \( \beta_i \) is the weight of the payroll factor, measured by wages and salaries, in state (i).
- \( L_{ij}/L_J \) is the ratio of payroll, measured by wages and salaries of company (j) in state (i) to total payroll, measured by wages and salaries, of company (j).
- \( \zeta_i \) is the weight of the payroll factor, measured by wages and salaries in state (i).
- \( N_{ij}/N_J \) is the ratio of payroll, measured by number of employees (FTE) of company (j) in state (i) to total payroll, measured by number of employees (FTE), of company (j).
- \( \gamma_i \) is the weight of the property factor, measured by the value of tangible personal property in state (i).
- \( P_{ij}/P_J \) is the ratio of property, measured by value of tangible personal property of company (j) in state (i) to total property, measured by value of tangible personal property of company (j).
- \( \hat{\rho_i} \) is the weight of the property factor, measured by the value of financial assets, in state (i).
\( F_{ij} / F_{j} \) is the ratio of property, measured by value of financial assets of company (j) in state (i) to total property, measured by value of financial assets of company (j).

\[ \alpha_i + \beta_i + \zeta_i + \gamma_i + \rho_i = 1 \]

The five factor apportionment formula presented above allows for loans, loan pools, and other types of institutionally created intangible assets to be included in the property factor without overwhelming the state-by-state distribution of tangible personal property. Similarly, bifurcation of the payroll factor into the state-by-state distribution of employee compensation allows for the differential treatment of “money center” states which can have disproportionate numbers of highly compensated officers relative to all employees and differential treatment of other employees. Thus, if the Working Group were to decide to employ the traditional equally weighted factors, \( \alpha_i \) would be \((1/3)\); and the sum of \( \beta_i, \zeta_i, \gamma_i \), and \( \rho_i \) would be \((2/3)\). If the Working Group were to decide that the apportionment formula should double weight the sales factor, then the weights would be \( \alpha_i = (1/2) \); and the sum of \( \beta_i, \zeta_i, \gamma_i \), and \( \rho_i \) would be \((1/2)\).