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## Bonus computations

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ceptances dated so as to correspond to the (weekly) consumption needs of the mill and payable at some future time.

The grower now takes the warehouse receipts and acceptances to the bank and gets, in effect, the money for his cotton.

The bank releases the warehouse receipts to the mill as the datings on the acceptances mature.

In the interim between the time of executing the acceptances and the datings thereon there is a contingent liability on the part of the mill. There is of course on the other hand the contingent asset in the form of cotton deposited in the warehouse. The value of the asset depends, however, on the fluctuation of the spot cotton market.

Transactions such as the above frequently are not recorded on the books. They grow out of contracts for future deliveries and the introduction of the trade acceptance into the situation does not alter the situation in any way. The acceptance is merely an instrument in the accomplishment of the contract.

Opinions may differ as to the propriety of setting up the contingent asset and contingent liability. The way one feels in the matter of booking contracts for future execution, or commitments generally, must govern in the present case. The auditor naturally will not criticize the client for having too much information on the books. The auditor should not fail, lest he suffer criticism, to note contingent liabilities such as the above at the foot of the balance sheet.

The use of the trade acceptance is increasing. According to the Federal Reserve Bulletin, May, 1918, "Between November 20, 1917, and March 4 of the present year, acceptance liabilities of the national banks increased from 153.6 to 230.2 millions, or about 50%. \* \* \* Acceptances held by the Federal Reserve Banks \* \* \* show a substantial increase from 209.9 on November 23, 1917, to 317.9 millions on March 8 of the present year."

We should be on the lookout for new

uses of trade acceptances. What applies to the cotton industry may apply to other industries. It is incumbent upon the accountant to make inquiry concerning such matters. If he discovers contingent liabilities they should be set forth.

### Bonus Computations

WE are able through the courtesy of Mr. L. L. Perrine, Assistant Treasurer of the American International Corporation, to present herewith a formula, or rather a series of same, covering tax situations wherein there are involved normal income, war income, and war excess profits taxes and a bonus based on net income.

The essential portion of Mr. Perrine's letter relating to this matter follows:

"I am setting forth in this letter formulae for determining the amount of bonus computed on a percentage applied against net income. Without going into more elaborate explanation, I think the following will clearly show the nature of the problem:

Let  $a$  = Net income prior to deduction of (1) Bonus; (2) War Excess Profits Taxes; and (3) War Income and Income Taxes.

$b$  = War Excess Profits Taxes, computed as if there were no bonus.

$c$  = War Income and Income Taxes, computed as if there were no bonus.

$d$  = Percentage of net income (after deducting bonus itself and all taxes) which represents bonus.

$x$  = Net income after deducting bonus and all taxes.

If I understand your problem correctly, the first four quantities,  $a$ ,  $b$ ,  $c$ , and  $d$ , are known quantities for each

particular case under consideration and the only unknown quantity is x.

There are five formulae, depending upon the highest percentages necessary in computing excess profits taxes. If this highest percentage is 60% or above, the formula would be as follows:

$$a - b - c = x + 37.60\% dx$$

If the percentages are lower, the formulae would be just the same as the preceding except for the last term, as follows:

Highest Excess Profits Percentages	Formulae
20%	$a - b - c = x + 75.20\% dx$
25%	$a - b - c = x + 70.50\% dx$
35%	$a - b - c = x + 61.10\% dx$
45%	$a - b - c = x + 51.70\% dx$
60%	$a - b - c = x + 37.60\% dx$

All of the above equations involve only one unknown quantity x in the first degree and can be solved without

much difficulty. Having found x, the bonus can then be ascertained. The war excess profits taxes and the war income and income taxes should then be computed on the basis of the net income as finally determined and represented by x.

I do not see how any single formula can be worked out which will take care of all the various cases in view of the gradations of percentages in computing war excess profits taxes. Furthermore, in some cases I can see how even the above formulae will not apply, at least in one respect. If the bonus percentage is quite large, it would result in a considerable decrease in net income, thereby possibly throwing computations back from the 60% formula to the 45% formula, or from the 25% formula to the 20% formula, etc."

The following case shows the application of the fourth formula above:

Invested Capital.....		\$200,000.00
Deduction 8% —	\$3,000.00.	
a = Net Income.....		\$ 65,000.00
Bonus 10%		
0 — 15 = \$30,000.00 — \$19,000.00 =	\$11,000.00 @ 20% =	\$2,200.00
15 — 20 = 10,000.00	10,000.00 @ 25% =	2,500.00
20 — 25 = 10,000.00	10,000.00 @ 35% =	3,500.00
25 — 33 = 15,000.00	15,000.00 @ 45% =	6,750.00
	b =	\$14,950.00
	\$65,000.00	
	14,950.00	
	<hr/>	
	\$50,050.00 @ 6% = c =	3,003.00
		<hr/>
		\$17,953.00

$$a - b - c = x + 51.70\% x$$

$$a = \$65,000.00$$

$$b = \$14,950.00$$

$$c = 3,003.00 \quad 17,953.00$$


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$$x + 51.70\% x = \$47,047.00$$

$$1.0517 x = \$47,047.00$$

$$1.0517) \$47,047.0000 \quad (\$44,734.24 \text{ @ } 10\% = \$4,473.42 \text{ Bonus.}$$

PROOF	
Income.....	\$65,000.00
Bonus.....	4,473.42
	\$60,526.58
Taxable Income.....	\$60,526.58
Excess Profits Tax = .....	\$12,936.96
\$60,526.58	
12,936.96	
	\$47,589.62
@ 6% = .....	2,855.38
	\$15,792.34
Income.....	\$65,000.00
Bonus.....	4,473.42
	\$60,526.58
Taxes.....	15,792.34
Actual Net Income... \$44,734.24 @ 10% = \$4,473.42 Bonus.	

## Foreign Exchange

THE time is not so long since past when the man with a knowledge of foreign exchange was looked upon as a sort of superior being. He is still sufficiently rare from an economic point of view to be in great demand. That the demand will increase can scarcely be doubted.

Opinion probably is undivided, among those who have opinions, as to the important part which this country will play in the matter of foreign trade after the present conflict shall have ceased.

Foreign trade and foreign exchange are so inextricably connected that if we as a nation would participate in the former we must understand the latter.

Trading originally meant barter; the exchange of goods for goods. In the modern sense it means the exchange of goods for money. In a transaction between two parties, the first has the obligation to turn over the goods; the second to make payment therefor.

Payment may generally be effected in one of two ways; accepting and paying the draft drawn by the seller against the purchaser, or remitting the funds.

The method of payment will usually depend on the credit relation existing between the two parties. When the purchaser is not well or favorably known to the seller the goods are apt to be sold on the condition that the draft will be paid before the goods are released. If the relations are of long standing the goods may be sold on open account, in which case the purchaser remits as agreed.

Trading may take place between two parties within the same country or between two parties, one of whom is in one country while the other is in a different country. The first transaction is called a domestic transaction; the second a foreign transaction.

The question of the currency involved in the settlement does not arise in the case of the domestic transaction. If the transaction occurs in the United States there is but one kind of currency possible.

If one party to the transaction is in one country while the second party is in a country where the system of currency differs there arises an international problem as to the kind of money to be used in settling for the goods.