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## VAT and Financial Services

When I open a current account at the bank, I do so in part because the bank will store my money more safely than leaving it under the mattress. It will also give me a cheque book and a debit card which enable me to withdraw and spend my money at will without needing to carry the cash around with me; and it will save me the trouble of finding someone who can put my money to productive use until I need it. Often, the bank will give me car breakdown cover or discounts on rail tickets as well. My consumption of all these services should be taxed.<sup>1</sup>

If the bank charged me explicitly for these services, this would be straightforward: it would be selling me a money-storage facility, a debit card, a borrower-finding service, and car breakdown cover, and VAT could be charged on the sale. But it does not. Instead, the bank gives me a paltry interest rate on my account. If I open a savings account that does not provide instant access to my funds and all the other perks, the bank will pay me a somewhat higher rate of interest.

Meanwhile, if I wish to borrow money, the bank will charge me interest at a much higher rate, reflecting the fact that, rather than doing me the service of storing and using funds I have but don't immediately need, the bank is now doing me the service of finding and providing funds I need but don't immediately have. It is through such interest rate 'spreads'—the interest rate

<sup>1</sup> Some have argued that financial intermediation services should not be taxed (e.g. Grubert and Mackie, 1999; Lockwood, 2010), but we are not convinced that there is any fundamental difference between financial services and other services.

charged to borrowers in excess of that given to savers—that the bank covers the cost of providing its services and makes profits.

Standard VATs cannot cope with this. Borrowers and savers are not explicitly buying financial services from the bank, so there is no sale on which VAT must be charged. To date, most governments around the world, including the whole of the European Union (EU), have resigned themselves to this, and have exempted financial services from VAT.<sup>2</sup> Exemption is seen as taxing what can be taxed: anything the bank purchases from registered traders to enable it to provide its services bears VAT that the bank cannot reclaim, so the government gets some revenue, paid for by customers if the bank passes on this VAT in its interest rates.

But exemption taxes only the value of the inputs the bank purchases; it does not tax the additional value added by the bank through the labour and ingenuity of bankers in transforming those inputs into the services I enjoy. And we discussed in Chapter 7 the other problems caused by banks' inability to reclaim VAT on their inputs:

- overpricing of financial services provided to other businesses, which ought not to bear any tax;
- a bias towards sourcing financial services (and anything produced using them) from countries that have lower VAT rates or that have a narrower (i.e. more generous) interpretation of what are non-creditable inputs;<sup>3</sup>
- difficulty identifying which inputs are attributable to exempt activities, where firms undertake a combination of taxable and exempt activities (as financial institutions typically do);
- a bias towards minimizing the use of taxed inputs—specifically, towards the use of zero-rated inputs and towards vertical integration as banks do

<sup>2</sup> Not all countries exempt financial services: Zee (2006) and Bird and Gendron (2007) describe other approaches used around the world, though none is equivalent to standard VAT treatment in the way described in the rest of this chapter. South Africa levies VAT on those services banks do charge explicitly for, which of course results in incentives to move towards even greater use of implicit charges.

<sup>3</sup> There is also a bias towards sourcing financial services from countries that in effect zero-rate exports of financial services. Services provided across borders within the EU are not zero rated in this way, however.

as much as possible in-house (provide their own cleaning and security services, for example) to avoid paying VAT on purchased inputs.

These are serious problems. It could even be argued that zero-rating would be an improvement on exemption: that it might be worth forgoing the revenue currently collected on inputs to financial services—and making financial services to consumers even more underpriced—in order to avoid these problems.

But in fact there is a logically straightforward way to bring financial services within the scope of VAT.

### 8.1. CASH-FLOW TAXATION

The government could treat my entire deposit as buying a bundle of financial services ('an account') from the bank, and charge VAT on the bank's 'sale' to me; when I withdraw the money, I am selling the account back to the bank, so it could reclaim VAT on this 'input purchase'.<sup>4</sup> If the money I get back is worth less in present-value terms than the money I deposited—because, in exchange for providing financial services, the bank withholds the interest I could normally expect to receive for delaying consumption and supplying funds—then the VAT on my deposit will be worth more than the VAT refund on my withdrawal. Whatever the bank charges me for its services will be reflected in the VAT payments.<sup>5</sup>

Borrowers could be treated symmetrically: giving them a loan is treated as the bank purchasing an input from them, while their repayment of the loan and interest is treated as buying something from the bank. If borrowers pay a high interest rate and savers receive a low interest rate, reflecting the services

<sup>4</sup> Note that, unlike with normal input purchases, the bank should be able to reclaim input VAT even though the depositor is not a registered trader. An alternative analogy that captures this is to imagine that I am returning my account to the bank much like I might return unwanted clothes to a shop, where my refund would include the relevant VAT on the item.

<sup>5</sup> This mechanism is presented in Hoffman, Poddar, and Whalley (1987), Merrill and Edwards (1996), and Poddar and English (1997), though the idea can be traced back at least as far as Meade (1978).

being provided to them, then the VAT paid on the saver's deposit and the borrower's repayments will exceed the VAT refunded on the saver's withdrawal and the loan to the borrower. VAT is in effect charged on the interest rate spread—the implicit charge for financial services provided.

A standard VAT taxes the cash traders receive for selling goods and services, less the cash they pay for purchasing inputs. The idea presented here is that all cash inflows to the bank—including deposits, interest on loans, and repayment of principal on loans—would be taken to represent taxable sales, while all cash outflows from the bank—including loans made, interest on deposits, and withdrawals of principal—would be treated as reflecting input purchases carrying creditable VAT.

To illustrate the basic concept, suppose that in year 1, one household deposits £1,000 and another borrows the same amount. In year 2, the latter repays the loan with interest at 15% and the former withdraws the principal with interest at 5%. The VAT rate is 20%. The cash received (and paid out) by the bank is shown in Table 8.1, along with the VAT due.

There is no net VAT due in year 1: £200 would be due in respect of the deposit (20% of £1,000), this being treated as a taxable sale, but a credit of £200 would be due in respect of the funds the bank loans out, treated as a deductible purchase. In year 2, repayment of the loan creates a VAT liability of £230 (20% of principal plus interest of £1,150)<sup>6</sup> while withdrawal of the interest-augmented deposit gives a credit of £210 (20% of £1,050). The only net VAT collected, all in year 2, is thus £20. This is equal to the VAT rate applied to the value of the bank's spread (£100), and works irrespective of

**Table 8.1.** Cash-flow VAT with a 20% tax rate

	Deposit (5% interest rate)		Loan (15% interest rate)		Overall	
	(1)	(2)	(4)	(5)	(7)	(8)
	Cash inflow	VAT	Cash inflow	VAT	Cash inflow	VAT
Year 1	£1,000	£200	(£1,000)	(£200)	£0	£0
Year 2	(£1,050)	(£210)	£1,150	£230	£100	£20

Note: Negative numbers in parentheses.

<sup>6</sup> If a loan were not repaid in full, the value of any assets claimed in lieu by the lender should be treated as a cash inflow.

whether this £100 represents pure profit or is used to pay the wages of bank employees.

The illustration in Table 8.1 is for saving and borrowing by final consumers. Financial services provided by one business to another will automatically be taken out of tax: the idea is just an extension of VAT, and it avoids taxing intermediate production in exactly the same way as VAT generally. For cash flows between registered traders, anything that is a taxable sale for one trader is a creditable input for the other; only cash flows to and from final consumers give rise to net tax liabilities. If the borrower in the example above were a registered trader, he would be charged the same £200 VAT on his borrowing that the bank was credited with in year 1, and would reclaim the same £230 that was charged on his repayment in year 2. The VAT credits and liabilities in respect of the loan cancel out in both years; the net revenue flows that are left are those in respect of the retail depositor: a £200 liability in year 1 and a £210 credit in year 2.

This cash-flow treatment could in principle apply not only to simple bank deposits and loans, but also to insurance and to more sophisticated financial products. The definition of what currently counts as exempt financial services is extraordinarily lengthy and complex—a very good example of the difficulties created by not having a standard VAT treatment of all goods and services. Such definitions would not matter if financial services were treated like other products.

Not quite all cash flows should fall within the tax. Wages, of course, are not a deductible input for a VAT. And equity transactions—dividend payments and sales and purchases of shares—must also be excluded from the tax, since money paid out to shareholders represents the profits generated by providing financial services, not the financial services themselves; if we were to bring shareholder transactions within the scope of the tax, anything paid by the bank's customers would be deducted when it was passed on to shareholders. Equity transactions are not normally part of VAT; all we are saying here is that, when bringing financial services within the scope of VAT, equity transactions should not be among them.

The principle of applying a cash-flow VAT to financial services is coherent and straightforward. In practice, this approach might have drawbacks. But we can exploit equivalences between different tax bases to devise mechanisms that achieve the same result in other ways. The key thing is to

keep focused on the logic and principles of what is achieved by this approach; *how* it is achieved can then be tailored for practicality. A clear understanding of what we are trying to achieve, and of how different taxes relate to each other, opens up possibilities for achieving the same outcome in ways that might be more administratively appealing.

One potential practical concern with the mechanism described so far is that the complexity and sheer number of financial transactions in modern economies—and especially the UK—may put strain on administrative mechanisms. Another is that the system outlined above would be a major change in the VAT system—introducing new, unfamiliar concepts and mechanisms into a tax with which businesses and revenue authorities are familiar and comfortable at the moment, and in a way that affects all traders, not just a few financial firms. A final concern is how the transition to a new system would deal with existing financial positions—deposits and loans already made, insurance contracts already written, and so on. These are all serious concerns, but we are not convinced that any of them is necessarily fatal to the underlying idea.<sup>7</sup> A number of suggestions have been made to

<sup>7</sup> An additional concern sometimes raised (e.g. Poddar and English, 1997, 98; Kerrigan, 2010) is that the tax would create cash-flow difficulties: if a business wanted to borrow £100, it would be charged £20 VAT on that cash inflow precisely when it was in need of cash, and only receive credit for loan repayments much later. But it is not clear how much of a problem this really is: the lender would receive a corresponding credit of £20 on the loan, and so should be just as willing to transfer £120 to the borrower as he was to transfer £100 to the borrower without the tax. In the absence of the tax, the lender would simply give £100 to the borrower. In the presence of the tax, the lender would instead give £120 to the borrower; the borrower would hand over £20 of this to HM Revenue and Customs (HMRC), while the lender could immediately reclaim £20 as input VAT. The only change to anyone's net payments arises from any short delay between the lender-borrower transaction and the settlement of tax and credit with HMRC—which, note, is a cash-flow *benefit* to the struggling borrower in this case. The much longer time lag between loan and repayment is irrelevant as long as the size of all cash flows is scaled up to reflect tax. Of course, the circular transfer of £20 from lender to borrower, on to HMRC, and back to the lender might seem like rather unnecessary bureaucracy; that would be eliminated by zero-rating business-to-business (B2B) transactions or adopting a tax calculation account (TCA) approach, two of the options discussed below. But, in any case, this circular flow is no different from that which arises at the moment, when one trader remits output VAT on a sale while another trader reclaims the same amount as input VAT; it is not clear that applying a cash-flow VAT to financial services would create significant cash-flow

alter the pure cash-flow VAT mechanism described above in order to achieve the same economic outcomes while dealing with these practical concerns, and we now discuss some of the key ideas.

## 8.2. SEPARATING OUT THE TAX ON FINANCIAL SERVICES

The cash-flow approach described above essentially extends the existing VAT to apply to financial services as well as to sales of ‘real’ goods and services. But rather than extending VAT to cover financial services, the tax on financial services could be introduced as a separate tax. Thus the familiar, tried-and-tested VAT would continue largely unchanged; but a separate tax would be levied on financial flows that did not represent ‘real’ sales or input purchases of the kind already subject to VAT.<sup>8</sup>

Separating the tax on financial services from the main VAT opens up possibilities for calculating and administering it in a different way. At the administrative level, for example, rather than requiring invoices for every transaction—taxing each cash inflow and crediting each cash outflow—it would be possible simply to add up net cash flow over the course of a year (say) and levy a tax on that. In the example in Table 8.1, a standard VAT would involve calculating the tax (or credit) due on the deposit and the tax (or credit) due on the loan each year (columns 2 and 5) before netting them off to give the overall VAT due (column 8). Instead, the bank could just look at its net cash flows (column 7) and do a single calculation based on that.<sup>9</sup>

problems, any more than applying a VAT to B2B transactions (rather than adopting a retail sales tax) does at the moment.

<sup>8</sup> In the terminology of the Meade Report (Meade, 1978): rather than replacing the current R-based VAT with an R+F-based VAT, VAT could continue to be R-based and a separate F-based tax introduced.

<sup>9</sup> These mechanisms are known as the ‘invoice-credit’ method and the ‘subtraction’ method respectively; see Ebrill et al. (2001) for a fuller description.

The attractions of a single consolidated calculation for a bank with millions of customers are obvious. On the other hand, doing the calculations separately for each account may have advantages in terms of the audit trail it provides: in the last chapter, we noted the advantages of requiring each claim for input VAT to have an invoice that can be traced to another trader's matching output VAT (though note that such stringent procedures are not required for companies to deduct purchase costs from profits for corporation tax purposes, for example).

Perhaps the biggest difficulties with taxing financial services through a separate tax rather than by extending the existing VAT arise in ensuring that VAT and the separate tax interact appropriately. These obstacles do not seem insurmountable, however. For example, there might be boundary issues in deciding which cash inflows and outflows reflect 'real' activities and which 'financial' activities; but as long as the two taxes are charged at the same rates, there is no need for precision in defining this distinction and allocating cash flows to one category or the other. Indeed, some difficult distinctions that are currently required for VAT would cease to be sensitive as they would no longer affect overall tax liabilities—for example, identifying which particular services are exempt, and identifying which inputs are used in the production of financial services and are therefore non-creditable. The crucial thing is to ensure that any cash flow is subject to one, and only one, of the taxes; the tax base for the financial tax could be defined as any cash flows not subject to the VAT.<sup>10</sup>

<sup>10</sup> We should recognize that extending VAT to financial services, while removing many problems associated with the current regime, would create at least one awkward new boundary problem, arising from the fact that financial outflows (unlike input purchases at present) would generate a deduction even if the recipient were not a registered trader. Cash outflows to households in respect of financial products would be deductible, but purchases of inputs from unregistered traders would not be. This creates a potential avoidance opportunity: if an unregistered trader provided widgets to a bank, and the bank paid 1p for the widgets but instead gave the trader an interest-free loan or paid massive interest on the trader's bank account, the widget supply would effectively be taken out of tax by the negative VAT on the financial transaction. But this hardly seems like an enormous problem. Note that no such difficulty arises if the widgets are acquired from a registered trader, since either payments to registered traders would not be deductible for the VAT or the trader's symmetric VAT payments would offset any credit.

In the following sections, we introduce alternatives to the pure cash-flow VAT described so far which change not merely the administration of the tax (as with consolidated versus transaction-by-transaction approaches) but the amount of tax that is remitted by each firm in each year. Yet these alternatives are designed to be economically equivalent to a cash-flow VAT, and they have the same properties in terms of alleviating rather than exacerbating difficult distinctions that tax authorities must draw.

Separation would also allow the two taxes to be more fundamentally different: for example, it might be possible for the financial tax to be levied on an origin basis while the rest of VAT continues on a destination basis. We do not pursue these possibilities here, except to note that any difference such as this in the underlying properties of the tax (as opposed to the timing, administration, and so on of payments) would reopen troublesome questions around the definition of financial services.

### 8.3. ZERO-RATING BUSINESS-TO-BUSINESS TRANSACTIONS

With pure cash-flow taxation, business-to-business (B2B) transactions are automatically taken out of tax because what is a taxable cash inflow ('sale') for one firm is a deductible outflow ('input purchase') to another. Only transactions with households have no such offset and therefore give rise to a net VAT liability.

An alternative way to take B2B transactions out of tax is for financial services to registered traders to be zero rated.<sup>11</sup> With respect to financial services, only cash inflows from non-business customers would be taken to represent taxable sales, and only outflows to those customers would be treated as purchasing inputs. In effect, this converts the financial services tax from a VAT to a retail sales tax.

The advantage of this approach is that the new tax regime could be restricted to retail financial firms. Non-financial firms—those whose dealings with households all relate to real goods and services and whose

<sup>11</sup> Huizinga, 2002; Poddar, 2003. As usual with VAT, traders below the registration threshold should be treated much like households.

experience of financial services relates entirely to their bank (or to other businesses)—would not have to do anything new. And the vast swathes of financial transactions between firms—not only bank loans to businesses, but also wholesale funding, interbank lending, and the overwhelming majority of the derivatives trades taking place daily in the City of London, for example—would be irrelevant for the tax.

In the numerical example in Section 8.1, the loan was treated as reflecting a taxable sale by the firm to the bank, with a £200 VAT liability for the trader and a £200 input credit for the bank in year 1; the repayment of the loan with interest led to a £230 credit for the trader and a £230 liability for the bank in year 2. In each year, the liability and the credit cancelled each other out. But if instead these business-to-business transactions were zero rated, there would simply be no liabilities or credits at all for the bank or the firm. Only the cash flows associated with the household's deposit would be measured and taxed.

As we discussed in the previous chapter, a retail sales tax also has disadvantages relative to a VAT, in requiring sellers (in this case, financial institutions) to distinguish between supplies to businesses and supplies to households, and in concentrating all revenue collection at the final (retail) link in the supply chain so that more revenue is lost if a transaction escapes tax. However, the balance between advantages and disadvantages may be different in the case of financial services from in the wider economy.

#### 8.4. TAX CALCULATION ACCOUNTS

Rather than collecting tax on inflows of principal (respectively, crediting outflows) up front, it is clearly possible to achieve an outcome that is the same in present-value terms by carrying that tax forward with an appropriate interest markup and collecting (refunding) it later. One particularly interesting possibility is to let the carried-forward principal deposited (loaned) cancel out the principal later withdrawn (repaid), and offset the interest associated with the carry-forward against the actual interest paid on the deposit (received on the loan). This is the essence of the 'tax calculation

account' (TCA) method of implementing VAT proposed by Poddar and English (1997).

Crucially, for this approach to work—for the changed pattern of tax payments to be equivalent to a cash-flow VAT—the interest rate with which the principal is carried forward must reflect the 'true' value of money today versus money tomorrow: the pure time value of money, not necessarily the actual interest rate at which the bank borrows or lends to customers, which may include an implicit charge for its services.

To implement such a system, the government must therefore take a view on what a 'normal' or 'pure' rate of interest would be in the absence of any charge for financial services. The interest rate on government bonds—the interest rate at which the government can borrow—might be a suitable guide in normal circumstances.

With payment and withdrawal / repayment of principal cancelling each other out, the government is taxing the difference between actual interest payments and this 'normal' rate of interest: taxing the interest on loans to the extent that it exceeds a 'normal' interest rate, and taxing the shortfall in interest on deposits below a 'normal' rate.

In a sense, this system offers a more direct answer to the problem posed at the start of this chapter: how to identify the charge for financial services when it is hidden in an interest rate spread. In effect, the government directly estimates what component of interest rates represents a charge for financial services, and taxes it. The government decides that a 'normal' rate of return is, say, 8%. Then any interest above 8% charged on loans, and any shortfall of interest below 8% paid on deposits, are taken to represent a charge for services and are taxed accordingly.

Note that if the values of loans made and of deposits taken are the same, then the overall tax base will just be the difference between interest received and interest paid by the bank, irrespective of what 'normal' rate of return is used: it is a tax on the interest rate spread which reflects the implicit charge for financial services. If loans exceed deposits or vice versa, then an adjustment is needed to reflect the imputed value of the balance.

As with a cash-flow VAT, B2B transactions should be taken out of tax to avoid taxing intermediate production; and again this can be done either by applying the TCA to all firms—allowing business customers to reclaim input tax on any 'excess' interest paid on loans and 'shortfall' received on

deposits—or by ‘zero-rating’ B2B transactions so that only transactions with households are measured and taxed, and only firms that undertake financial transactions with households need be subject to the tax.

Table 8.2 compares a cash-flow VAT with a TCA, building on the simpler example in Table 8.1.

Consider first the saver, who deposits £1,000 in year 1. The account has a 5% interest rate, so in year 2 £50 is paid out to her; in year 3 she receives a further £50 interest and closes the account, thus taking out £1,050 in total in that year. These transactions between the bank and the customer are shown in column 1.

Under a cash-flow VAT (column 2), the £1,000 deposit is treated as a taxable sale by the bank, generating a £200 liability. The £50 and £1,050 paid out to the saver are treated as deductible input purchases, generating VAT refunds at the 20% tax rate. The tax calculations are straightforward: they are just 20% of cash flows.

Column 3 shows liability under a TCA approach under which a ‘normal’ return is assumed to be 8%. The deposit and withdrawal of principal have no tax consequences. But any shortfall in interest paid below the 8% normal return is taxed. An 8% return on £1,000 would be £80; since only £50 is actually paid, the remaining £30 (the 3 percentage point gap between the actual interest rate paid and the ‘normal’ rate of return) is attributed to financial service and taxed at 20%, giving a tax liability of £6 in each year for which it is paid.

**Table 8.2.** Cash-flow and TCA approaches with a 20% tax rate and an 8% ‘pure’ interest rate

	Deposit (5% interest rate)			Loan (15% interest rate)			Overall		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Cash inflow	VAT	TCA	Cash inflow	VAT	TCA	Cash inflow	VAT	TCA
Year 1	£1,000	£200	–	(£500)	(£100)	–	£500	£100	–
Year 2	(£50)	(£10)	£6	£75	£15	£7	£25	£5	£13
Year 3	(£1,050)	(£210)	£6	£575	£115	£7	(£475)	(£95)	£13
Present value	£53.50	£10.70	£10.70	£62.41	£12.48	£12.48	£115.91	£23.18	£23.18

Notes: Negative numbers in parentheses. Present value = Year 1 value + (Year 2 value / 1.08) + (Year 3 value / 1.08<sup>2</sup>).

At first sight, the VAT and the TCA look like completely different taxes: the patterns of payments in columns 2 and 3 seem completely unrelated. But now look at the bottom row, 'present value'. This shows the value in year 1 of the stream of payments in each column, assuming that money received a year earlier is worth 8% more.

With that 8% discount rate, the interest and principal returned to the saver are worth only £946.50 in year 1 terms: the bank is implicitly charging £53.50 for its services. The cash-flow VAT, since it taxes all cash flows as they occur, naturally generates payments with a present value of 20% of this, or £10.70; but, crucially, £10.70 is the present value of the payments under a TCA too. The seemingly unrelated patterns of payments in columns 2 and 3 turn out to have the same present value.

The relationship between columns 2 and 3 can be thought of as follows: rather than handing over £200 in year 1, the bank carries it forward to offset against £200 of credit due in year 3 when the saver withdraws her money. But to reflect the time value of this delay, the bank pays 8% (£16) interest each year. Deducting from this £16 the £10 credit due on its actual interest payments to the saver leaves it facing a net liability of £6 in each year.

The second panel of Table 8.2 shows the corresponding calculations for a £500 loan on which 15% interest is charged.<sup>12</sup> In this case, the cash-flow VAT involves a refund in year 1 (the loan is an input purchase by the bank) followed by payments in years 2 and 3 (the interest and repayment on the loan are treated like income from sales). With an interest rate as high as 15%, the VAT on interest and repayment is worth more than the VAT refund on the £500 loaned out. Under a TCA, tax is due on the excess of 15% interest (£75) over an 8% 'normal' interest rate (£40). Again the present value of these tax payments is the same as that of the cash-flow VAT payments.

Taking the deposit and the loan together, overall figures for VAT and TCA payments (columns 8 and 9) can be derived either by summing the payments

<sup>12</sup> The £500 loan is less than the £1,000 deposit taken: one could imagine that the remaining £500 is held as reserves, or lent out to a VAT-registered business customer (if B2B transactions are zero rated). Alternatively, loans could exceed deposits if they are financed from the bank's equity capital, or from wholesale funding (if B2B transactions are zero rated). The example was chosen to demonstrate that (and how) the cash-flow VAT and TCA work when loans and deposits are not equal.

for the deposit and loan or by applying the VAT/TCA calculations to the bank's net cash flows to and from customers shown in column 7. In other words, as with a cash-flow VAT, the TCA can be calculated separately for each deposit/loan for each customer, or with a single consolidated calculation: the value of the bank's net financial assets (outstanding loans less outstanding deposits) could be recorded at the start of the year, and the bank's net interest income (interest received from borrowers less interest paid to savers) for the year could be taxed in so far as it exceeded 8% of net assets. (In this case, deposits exceed loans, so 8% of the balance is added to net interest income to form the tax base.)

The TCA is somewhat harder to calculate than simply taxing cash flows: it is easier to arrive at the figures in column 5 than in column 6 of Table 8.2. Its neutrality also relies on the choice of the 'normal' rate of return being accurate: using a 'normal' interest rate that is too high would overtax saving and undertax borrowing, and vice versa, with obvious implications for distorting the pattern of financial activity in the economy.

On the other hand, the TCA has significant advantages. Comparing the VAT and TCA columns in Table 8.2, it is striking that the TCA involves much smaller gross tax payments, and much less use of refunds, to arrive at the same present-value tax payments. This has two important implications.

First, taxing all cash inflows and deducting all outflows might be thought to pose a revenue risk—for example, if a saver/lender claims a VAT refund on the principal they deposit/lend, but then disappears (or perhaps emigrates, depending on how international flows are treated) without paying VAT when the principal is withdrawn/repaid. The TCA gives much less exposure to such risks.

Second, by avoiding such large payments and refunds, the TCA can deal more smoothly with changes in tax rates—the most important of which is the change from zero to 20% when the reform is introduced. Introducing a cash-flow VAT raises a transitional problem of how to deal with existing financial positions—deposits and loans already made, and so on. We might not want to give input-VAT credits for withdrawals by savers if we had not taxed the deposit when it was made, or tax mortgage interest paid to the bank if we had not given credit when the loan was made. Giving windfall gains to households with existing savings and imposing windfall losses on households with existing debts is not an appealing proposition.

A TCA could be introduced by simply noting the current outstanding balance of a loan or deposit on the day the new system was introduced (call it A-day) and operating the system from there. Any interest on loans received by the bank after A-day would be taxed in so far as it exceeded a normal return to the A-day balance; any interest paid on deposits would be taxed in so far as it fell short of a normal return to the A-day balance.

In principle, this transitional arrangement has a cash-flow counterpart. The equivalent under a pure cash-flow regime would be to levy a windfall tax on A-day on the balance of deposits, with a windfall refund on the balance of loans. In effect, this amounts to a retrospective tax/refund on the past cash flows to balance out the cash-flow tax applied in future: it is as if all the loans and deposits were made on A-day. These windfall taxes and refunds are equivalent in present-value terms to taxing/crediting a stream of imputed 'normal' returns to the existing position under a TCA. In principle, it is hard to see any obstacle to imposing such a windfall levy on banks' loans less deposits. But, in practice, governments may be understandably squeamish about doing so.

We will revisit these advantages and disadvantages when we come to examine the merits of ACE (allowance for corporate equity) versus cash-flow corporation taxes in Chapter 17 and RRA (rate-of-return allowance) versus cash-flow expenditure tax treatments of savings in Chapter 13. There are close parallels between these systems, and many of the same issues recur.

## 8.5. THE FINANCIAL ACTIVITIES TAX

We have noted that either the pure cash-flow approach or the TCA approach could in principle be implemented either separately for transactions with each customer or by looking at firms' consolidated accounts. In fact, with a consolidated rather than transaction-by-transaction approach, the tax base could be calculated in a more radically different way: as the sum of profits and wages. At first glance, profits and wages might seem to have little to do with a VAT. But value added is actually the sum of profits (on one definition) and wages. If a firm sells its outputs for more than it buys its inputs, the surplus—the value it adds—is either paid to employees in wages

or is profit for the firm. Profits are the income that is left over after buying inputs and paying wages.<sup>13</sup>

We have seen clues to this already: in describing the cash-flow VAT in Section 8.1, we mentioned two exceptions to the rule that all cash flows are taxed: those in respect of equity and labour. These flows represent the profit and wages we are seeking to tax. Rather than taxing all cash inflows and deducting all cash outflows except those to shareholders and employees, we could just tax net outflows to shareholders and employees.

The relationship between a VAT and a tax on profits plus wages becomes clearer when one considers that the starting points for calculating profits and value added have much in common. In both cases, the basic calculation consists of recording income from sales and deducting expenditure on inputs. The biggest difference is that wages are treated as a deductible expense for corporation tax, but not as a creditable input for VAT: thus, to be equivalent to a VAT, a tax on profits must be supplemented by a tax on wages.

Closer examination of what exactly constitutes taxable income and what costs can be deducted—in particular, how the purchase cost, depreciation, and resale price of capital assets are treated—shows that a VAT is identical to a tax on profits plus wages only with a particular definition of profits: not surprisingly, a cash-flow definition. In Chapter 17, we will discuss the cash-flow corporation tax in more detail. We will also introduce—and advocate—a form of corporation tax based on another definition of profits, with an allowance for corporate equity (ACE), which is equivalent in present-value terms to a cash-flow definition of profits. A tax on the sum of wage costs plus profits on one of these two definitions is equivalent to a tax on value added.

In fact, the ACE system of corporation tax is closely related to the TCA system of VAT, apart from the deduction of labour costs. The ACE bears the same relation to a cash-flow corporation tax as the TCA bears to a cash-flow VAT.

A recent IMF report on the taxation of the financial sector called for precisely such a tax on profits plus wages, which it called a ‘financial

<sup>13</sup> Indeed, calculating value added by summing wages and profits is one of the three ways of implementing a VAT listed by Ebrill et al. (2001)—the ‘addition’ method, to go alongside the ‘subtraction’ method and the ‘invoice-credit’ method mentioned in footnote 9.

activities tax' (FAT), noting explicitly its potential to substitute for VAT on financial services.<sup>14</sup>

In principle, taxes on profits and wages could replace the entire current VAT structure. But there is no reason for such an upheaval: for the most part, VAT works passably well as it is. If introducing a new tax on financial services, however, it is sensible to ask which way of calculating it is most practical, and taxing profits plus wages has some appeal in that both revenue authorities and taxpayers are accustomed to operating corporate taxes and wage taxes in the financial sector; the cash-flow VAT and TCA approaches described above might be less familiar and involve bigger changes.

However, to be equivalent to a VAT on financial services, and therefore avoid unnecessary distortions, a FAT should have two features that are unusual when calculating profits:<sup>15</sup>

- First, if a tax were introduced on the *total* profits and wages of financial firms, it would involve the double taxation of any of their activities that are currently subject to VAT, from the provision of investment advice to the provision of safety-deposit boxes. To be neutral, only the profits and remuneration associated with their VAT-exempt financial activities should be taxed.<sup>16</sup> (Note that this would alleviate, rather than create, pressure on the definition of financial services, since a particular activity would now always be subject to either VAT or FAT, never both or neither, so the categorization would not matter as long as the tax rates were the same.)
- Second, some mechanism would be needed for taking B2B transactions out of tax—either excluding financial transactions with business customers from the calculation of profits for the FAT, or else allowing

<sup>14</sup> International Monetary Fund, 2010. The variant discussed here is what is called 'FAT1' in appendix 6 of the report. The FAT is discussed in more depth in Keen, Krelove, and Norregaard (2010).

<sup>15</sup> These issues are mentioned in the IMF reports (International Monetary Fund, 2010; Keen, Krelove, and Norregaard, 2010), but the IMF's baseline exemplar of FAT1 (on which its numerical estimates are based, for example) seems to assume conventional calculation of profits.

<sup>16</sup> This also implies that inputs on which VAT has been reclaimed should not be allowed as deductible expenses in the definition of profits for FAT purposes.

business customers to claim a FAT refund (or a VAT deduction) for the losses they make in their financial dealings with banks.

The partitioning of profit implied by these features—separating out financial activities, and perhaps financial transactions with business customers, from other profits—clearly moves it a step away from the familiar calculation of profits that these firms will be doing anyway. But the partitioning and the calculations are not difficult or sensitive—tending, as with all of these equivalent treatments, to alleviate rather than exacerbate awkward boundaries in the current system.

## 8.6. CONCLUSIONS

A number of taxes are already successfully applied to the financial services sector. For all the volume and complexity of financial trades conducted in the City of London and other financial centres, the calculation of profits for corporation tax purposes and wages for income tax and NICs purposes proceeds fairly smoothly, and has succeeded in raising large amounts of revenue.

Imposing VAT on financial services is admittedly more difficult. There are real barriers to treating financial services just like any other product for VAT. But there are potential routes to achieving an equivalent outcome. Whether by extending VAT or introducing a separate tax; whether B2B transactions are taken out of tax by zero-rating them or by allowing non-financial firms to reclaim tax; whether the calculations are transaction-by-transaction or based on firms' consolidated accounts; whether by subtracting inflows from outflows or summing profits and wages; whether operated on a cash-flow or TCA/ACE basis: we do not claim to have studied the practical implications of each of these (let alone all combinations) in detail, and we do not have a single preferred mechanism. The unfamiliarity of the systems and the complexity of the financial services industry are such that serious investigation would be warranted before leaping into any particular option. We have laid out the concepts here, rather than exploring the details: our discussion has barely touched on the international dimension, for example,

which would be important in practice. But we are optimistic that a practical solution can be found.

The FAT is the option that has attracted most attention since the IMF proposed it. The UK's coalition government's first Budget after it was formed in Summer 2010 said that it would 'explore' such a tax,<sup>17</sup> and the European Commission has also said it 'believes that the FAT option is worth exploring in the EU context'.<sup>18</sup> Yet it is notable that the IMF staff analysing the FAT themselves concluded: 'it should be stressed that it is better to fix the VAT treatment of financial services than to use a FAT1 as fix'.<sup>19</sup>

Both the cash-flow VAT and the TCA were tested in experimental pilots with volunteer banks in Europe during the 1990s and were found to be conceptually robust and administratively practical.<sup>20</sup> The hostility that there is, and the fact that these proposals are not currently on the European Commission's agenda, are more to do with resistance to unfamiliar concepts and concerns over compliance costs. But the concepts are clear and conducive to explanation, and familiarity would come with time; and it is by no means obvious that compliance costs need be prohibitively high if the appropriate combination of mechanisms described above were chosen. It would be worth putting up with some administrative and compliance burden to reap the benefit of economic efficiency and the revenue gain; and the benefits of removing the administrative and compliance burdens imposed by the current system of exemption should not be forgotten.

Tentative government estimates imply that exempting financial services costs about £10 billion (with a 20% VAT rate),<sup>21</sup> although around a third of

<sup>17</sup> HM Treasury, 2010b, para. 1.99.

<sup>18</sup> European Commission, 2010a, 7. See also European Commission (2010b).

<sup>19</sup> Keen, Krellove, and Norregaard, 2010, 138.

<sup>20</sup> See Poddar (2007).

<sup>21</sup> Source: Authors' calculations using HMRC statistics, table 1.5 ([http://www.hmrc.gov.uk/stats/tax\\_expenditures/table1-5.pdf](http://www.hmrc.gov.uk/stats/tax_expenditures/table1-5.pdf)), adjusting the 2010–11 estimate to reflect the fact that the VAT rate was 17.5% for part of that fiscal year and 20% for the rest. The IMF report (International Monetary Fund, 2010) estimates that the tax base for a FAT in the UK would be about 6.1% of GDP, which implies that a 20% FAT would raise around 1.2% of GDP, or about £18 billion in 2010–11. Note, however, that this estimate is for a version of the FAT which, as discussed above, appears to tax non-exempt activities of financial firms and financial services to VAT-registered businesses, both of which we argue should be removed from the tax base. Precise magnitudes aside, both the HMRC and IMF estimates are consistent with earlier

this is recouped through insurance premium tax, a tax currently levied on insurance premiums as a proxy for VAT which could be abolished (a further simplification) if insurance were subject to a cash-flow VAT (or equivalent) along with other financial services. Note that this £10 billion figure is not a good guide to the scale of the problem caused by the current exemption: it is the net revenue effect of undertaxing financial services to households and overtaxing financial services to businesses. The revenue effects of these offset each other, but both are distortions in their own right. Two common complaints are that it has been too cheap and easy for households to borrow, but too expensive and difficult for businesses to obtain finance. Moving from exemption to a cash-flow VAT (or equivalent) treatment would alleviate both of these problems. And that is even before considering the other problems that exemption creates: the bias towards vertical integration, the distortion to international trade, the difficulty identifying each firm's untaxed outputs and non-creditable inputs, and so on.

The exemption of financial services, like other VAT exemptions, is mandated by EU law. It may therefore be that reform must be pursued at an EU level, though it may be that an equivalent tax (such as a FAT) could be introduced unilaterally. In any case, international coordination would be desirable to minimize the risk of financial services being actually or notionally relocated in response to the tax.

In the wake of the recent financial crisis, many commentators and some governments have argued for the imposition of other taxes on financial services in general, and banks in particular.

Some proposals are aimed at changing the behaviour of financial institutions and correcting specific market failures. The UK is one of several countries (including the US, Germany, France, and Sweden) that have recently adopted, or propose to adopt, a tax on banks' liabilities, generally excluding core equity capital and some other low-risk sources of funds. Along with the FAT discussed above, this is the second tax advocated by the

studies (Genser and Winker, 1997; Huizinga, 2002) in finding that a move from exemption towards more standard VAT treatment of financial services could raise significant sums.

IMF, who called it a ‘financial stability contribution’;<sup>22</sup> the UK’s coalition government has stated that its proposed tax is ‘intended to encourage banks to move to less risky funding profiles’.<sup>23</sup> The UK and France also imposed temporary taxes on certain bank bonuses; the stated aim of the UK’s tax was to tackle ‘the remuneration practices that contributed to excessive risk taking by the banking industry’ and to ‘encourage banks to consider their capital position and to make appropriate risk adjustments when settling the level of bonus payments’.<sup>24</sup> We do not explore these issues here. The complex issue of market failure in the financial services sector is beyond the scope of this book, and consideration of any fiscal measures must be intimately linked with consideration of the regulatory regime, which is the main means of providing appropriate safeguards in the financial system.

Other proposals are motivated by a more general desire to extract more revenue from the financial sector—to punish banks for recent events, to recoup the costs of the bail-out, to build up funds to deal with any future crisis, or to shrink a sector that is argued to have become too big. Of course, *any* additional tax could play a role if the objectives are stated in such general terms. These arguments can be developed more fully—some more coherently than others. But even if such arguments are accepted, serious attention must be paid to the design of any additional tax in order to avoid creating new problems. For example, in Chapter 6, we explained why we would not be comfortable with the idea of a financial transactions tax, which is one of the more popular suggestions. Introducing VAT (or an equivalent) on financial services would go some way towards addressing these objectives, but by removing existing distortions rather than adding to them. If there is a concern that the financial services sector is undertaxed, we should ensure that banks are at least subject to the same taxes as other businesses before we think of applying special additional taxes.

<sup>22</sup> International Monetary Fund, 2010.

<sup>23</sup> HM Treasury, 2010b, para. 1.63.

<sup>24</sup> HM Treasury, 2009, box 3.2.