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AN INDUSTRY-SPECIFIC VAT IN MICHIGAN – OBJECTIVE VALUATION IN THE RETAIL GASOLINE TRADE

Richard T. Ainsworth

New York adopted an industry-specific value added tax (VAT) to solve problems with virtual intermediaries (room remarketers) under its hotel accommodations tax.¹ The New York VAT resembles the VAT used in the European Union (EU). It is a credit-invoice VAT² that *subjectively* values supplies.³

Michigan has also adopted an industry-specific credit-invoice VAT, however the targeted industry is the retail gasoline trade. The valuation method is *objective*, rather than subjective. In valuing supplies objectively rather than subjectively, the Michigan VAT resembles the exception provisions that are found in most VATs around the globe. Objective valuations are used in VATs when dealing with inherently problematical transaction types.⁴

The central point is that Michigan, like New York, has departed from the traditional American approach of taxing consumption in a single stage (directly from the consumer through a retail sales tax). Michigan is doing this because it wants to capture the administrative benefits of utilizing a multi-stage levy. What New York and Michigan are interested in securing is:

- a larger and more stable and revenue flow through the VAT's fractioned payment mechanism, and
- a more easily audited tax regime through a leveraging of the VAT's self-enforcement mechanisms.

¹ Richard T. Ainsworth, *New York Adopts a VAT*, 61 STATE TAX NOTES 223 (July 25, 2011).

² Alan Schenk & Oliver Oldman, *VALUE ADDED TAX – A COMPARATIVE APPROACH* (2007) at 38, defining the credit-invoice VAT and indicating that it is the dominant VAT model in the world.

The most prevalent method for calculating VAT worldwide is the credit-invoice VAT (or invoice VAT) that relies on a tax-against-a-tax-methodology. This form of VAT was established after World War II in Western European countries (countries now members of the EU). Including the other elements in the description of the credit-invoice VAT, the EU-style VAT reaches international transactions under the destination principle, imposes tax on a consumption base, and typically calculates output tax on tax-exclusive prices.

³ Case 230/87, *Naturally Yours Cosmetics Ltd. v. Commissioners of Customs and Excises*, 1988 E.C.R. 6365 at ¶ 16 (expressly holding that a subjective valuation, not an objective valuation applies in EU VAT, "... since the basis of assessment is the consideration actually received and not a value estimated according to objective criteria.").

⁴ This is the case in the EU. *See*: VAT DIRECTIVE Art. 395(1). This article has always permitted EU Member States to derogate from subjective valuation and apply objective valuation (called "the open market value" in the Directive). Commission approval was needed to derogate, and the Commission made it clear that it preferred open market valuation measures that were limited in scope and duration. As of July 24, 2006 the "Rationalization Directive" changed this, and now allows Member States to elect objective valuations in most related party transactions. VAT DIRECTIVE, Arts. 72 & 80. [On November 28, 2006 the SIXTH COUNCIL DIRECTIVE was repealed and replaced with the RECAST VAT DIRECTIVE (VAT DIRECTIVE). Council Directive 2006/112/EC on the Common system of value added tax, O.J. (L 347) 1].

This paper considers Michigan's *objectively valued*, industry-specific, credit-invoice VAT in the retail gasoline trade in three parts. It briefly defines a credit-invoice VAT and explains the difference between subjective and objective valuation methodologies. Second, the Michigan statute is set out in a manner that makes the VAT framework upon which it is built more apparent. Third, the current Illinois investigation into retail gasoline tax fraud is considered. Illinois contrasts well with Michigan, because Illinois modified its sales tax on gasoline (effective January 1, 2011) to bring it into rough alignment with Michigan's VAT.

Illinois' intent is to find a statutory "fix" to the fraud. Illinois does not follow Michigan completely, because the Illinois tax does not involve the entire commercial chain. It involves only two stages. It does however employ an *objective valuation* in a multi-stage *ad valorem* structure. But, it could (and probably should) go further.

This paper concludes with a couple of suggestions. First, it suggests that it might be valuable for both Michigan and Illinois to look at the New York VAT in hotel accommodations. The New York VAT uses a far more conventional *subjective valuation* methodology, and does so to great advantage. Stated another way, from a global VAT perspective, it is not apparent that the retail gasoline trade presents the kinds of administrative problems with valuation that would warrant use of an exceptional valuation methodology – *objective valuation*.

Secondly, as long as Michigan and possibly Illinois are looking at VATs in the gasoline trade they might consider going the next step and incorporating fraud prevention technologies in the administration of their taxes. Fraud prevention technologies are being installed in VAT jurisdictions globally. VATs, just like the retail sales tax, are vulnerable to sales suppression frauds at the final stage (the sale by the retailer to final consumer). Although the percent of revenue lost to this fraud in VATs is not as great as under the retail sales tax, enforcement of the gasoline tax would be much easier with these technologies than without them.

VAT/GST⁵

Like the retail sales tax, a value added tax is an *ad valorem* tax. However, instead of collecting the full tax on value at the point of final consumption, a VAT collects the tax in slices all along the supply chain measured by the value added at each stage. As Schenk and Oldman indicate:

A value added tax (VAT) is a generic name associated with a multistage tax that is levied on the value added by each business firm at every stage of production of goods and services.⁶

⁵ New Zealand, for example, calls its VAT a goods and services tax (GST). A GST is simply another name for a VAT. The expression "VAT" is closely associated with the EU, whereas the expression "GST" is popular in many of the former UK colonies (Canada, New Zealand, Australia, Singapore, and South Africa).

⁶ Schenk & Oldman, *supra* note 2 at 30.

However, even though VATs are *ad valorem* taxes, they differ among each other. There are also internal differences on how they determine value for specific transactions. When value is subjectively determined, the tax is based on the price actually agreed to between the parties. The price placed on the invoice is the value upon which the tax is determined. When value is objectively determined the tax is based on the fair market value of the supply, or the price that a willing buyer would agree to pay, and willing seller would agree to accept in a freely negotiated exchange. This may or may not be the price recorded on the invoice, and for this reason when objective measures are used they add complexity to the VAT.

For example, assume a VAT rate of 10%. Assume further that A owns an item that regularly sells in the marketplace for \$100, and also assume that A agrees to sell it to B in a taxable transaction for \$75.⁷ In a jurisdiction that determines the VAT due with an objective measure of value, the tax would be \$10 (10% x \$100 = \$10). However, in a jurisdiction that determined the VAT due with a subjective measure of value, the tax would be \$7.50 (10% x \$75 = \$7.50). Admittedly, in most cases objective values will be the same as subjective values, because the price that two parties agree on will often be the best evidence available of the objective value of an item in the marketplace.

No VAT today functions entirely on objective valuation. VAT is determined in the vast majority of transactions by multiplying the appropriate rate times the stated invoice price.⁸ However, in a gift there is no invoice and no consideration. Jurisdictions that wish to make gifts taxable under their VAT reach gifts through objective valuations.⁹

⁷ The reason for this discount could be “A’s” excess inventory, or cash flow problems, or it could be that “B” in this instance simply drove a “hard bargain” and “A” relented and sold for less than he could have gotten if he waited or sold to a different party.

⁸ One of the primary reasons for not adopting objective valuations is the amount of effort such a valuation methodology entails. If determining this value were the obligation of the taxpayer in every case the VAT would be hopelessly complex. There would be issues about what was the proper “marketplace” where measurements could be taken as well as issues about gradations in the quality (or quantity) of the supplies involved. Michigan and Illinois avoid these problems by valuing all sales at a retail market level (regardless of the level of the market involved) and determining that all gasoline is measured by the statewide average retail price of a gallon of self-serve unleaded regular. But, even more is done to make objective valuation work. Michigan and Illinois do not ask the taxpayer to conduct valuation studies. The state performs this measurement for the taxpayer, and holds the measurement constant for six months.

⁹ For example, the New Zealand GST has a very broad concept of a taxable supply. It includes gifts, as well as the provision of goods and services. [GOODS AND SERVICES TAX ACT, 1985 (N.Z.) at §5] To reach gifts the New Zealand definition of consideration is similarly broad and requires objective valuations. [GOODS AND SERVICES TAX ACT, 1985 (N.Z.) at §21].

South Africa however differs on this point and rather than getting involved in trying to objectively value gift transactions it expressly exempts them. 1991 SA REVENUE 89; REVENUE, VALUE-ADDED TAX ACT No. 89 of 1991 at § 10(23) (South Africa)

Save as otherwise provided in this section, where any supply is made for no consideration the value of the supply shall be deemed nil.

A nearly identical provision is found in 1991 REPUBLIC OF FIJI 45; VALUE ADDED TAX DECREE No. 45 of 1991 at § 19(14).

Other jurisdictions reach the same result as South Africa and Fiji by defining taxable supplies as a transaction that includes consideration, as in Australia. A NEW TAX SYSTEM (GOODS AND SERVICES TAX) ACT, 1991 at Paragraph 9-5(a).

9-5 Taxable supplies

The other common situation where VATs resort to objective valuation is where the transaction itself is inherently suspect. This commonly occurs when the transaction is between related parties.¹⁰ Needless to say, the retail gas trade is not a series of gift transactions, and although some of the commercial parties may be related, this is not a general characteristic of the trade.

You make a *taxable supply* if:

- (a) you make the supply for *consideration; and
- (b) the supply is made in the course or furtherance of an *enterprise that you *carry on; and
- (c) the supply is *connected with Australia; and
- (d) you are *registered, or *required to be registered.

However, the supply is not a *taxable supply to the extent that it is *GST-free or *input taxed. (emphasis in original)

Regulatory guidance is then applied to make it clear that, “GST is not payable on a supply unless it is made for consideration ...” AUST. GOODS AND SERVICES TAX RUL (GSTR 2001/6) *Goods and Services Tax: Non-Monetary Consideration* at ¶ 56.

¹⁰ For example, consider the Canadian GST. At EXCISE TAX ACT, R.S.C., ch. E-15, § 154(1) (Can.) sets out the main Canadian valuation rule for *subjective valuation* as follows:

... every recipient of a taxable supply made in Canada shall pay ... tax in respect of the supply calculated ... on the value of the consideration for the supply.

And as § 153(1) further clarifies:

... the value of the consideration, or any part thereof, for a supply shall, for the purposes of this Part, be deemed to be equal to

- (a) where the consideration or that part is expressed in money, the amount of the money; and
- (b) where the consideration or that part is other than money, the fair market value of the consideration or that part at the time the supply was made.

However, in cases where a supply is made between persons that are not dealing at arm’s length the Canadian statute shifts from a subjective to objective valuation in instances where the recipient does not qualify for a full input credit on the supply (consumers, small suppliers and persons engaged in exempt activities, such as financial institutions and universities). In these instances § 155(1) provides that the value of the supply is *a value equal to the fair market value of the property or service*.

(1) For the purposes of this Part, where a supply of property or a service is made between persons not dealing with each other at arm’s length for no consideration or for consideration less than the fair market value of the property or service at the time the supply is made, and the recipient of the supply is not a registrant who is acquiring the property or service for consumption, use or supply exclusively in the course of commercial activities of the recipient,

- (a) if no consideration is paid for the supply, the supply shall be deemed to be made for consideration, paid at that time, of *a value equal to the fair market value of the property or service* at that time; and
- (b) if consideration is paid for the supply, the value of the consideration shall be deemed to be *equal to the fair market value of the property or service* at that time. (emphasis supplied)

See also REVENUE CANADA, GST MEMORANDA G300-7 VALUE OF SUPPLY (GST 300-7) at ¶¶20-23, available at <http://www.cra-arc.gc.ca/E/pub/gm/g300-7/README.html>.

Singapore does the same at: GOODS AND SERVICES TAX ACT, Cap 117A, at §17(3) & Third Schedule § 1(1)(c) (Sing.); (3) Australia is similar at: A NEW TAX SYSTEM (GOODS AND SERVICES TAX) ACT, 1991 at ¶ 72-5(1)(a) & (b) (concerning supplies without consideration) and at ¶ 72-70(2)(a) & (b) (concerning supplies with inadequate consideration). New Zealand makes the same distinction at: GOODS AND SERVICES TAX ACT, 1985 (N.Z.) at §10(3)(b) & (c).

The Icelandic VAT for example, permits objective valuations as an exception. It sets out an objective measure for the “tax price” for use in situations where subjective valuations are difficult to determine. It then goes one step further and provides that a *cost-plus* methodology will be used to determine an objective measure of value where no marketplace exists within which to establish a price-referenced objective valuation. The Icelandic VAT states:

When goods or services are exchanged or goods are handed over without charge, *the tax price shall be based upon the general price in similar transactions*. Should such a general price not be available the tax price shall be based on the calculated sales price where account is taken of all cost plus the markup generally used for goods and services in a similar category.¹¹

Thus, objective valuation is an exception, not the main rule. Iceland’s approach is standard; Michigan’s approach is unusual.

MICHIGAN’S VAT

Michigan converted its single stage retail sales tax on gasoline to a multi-stage tax by requiring the entire commercial (gasoline) chain in Michigan to pay (and collect from one another) an amount of tax calculated by applying the current sales tax rate to the statewide average retail price of a gallon of self-serve unleaded regular.¹² Technically, at all stages before the final retail stage, this tax operates like a specific duty not a value added tax. The *value added* at each stage is not being taxed. Just the *presumed value of the final retail sale* is being taxed. At all stages before the final sale valuation is objective, not subjective.

The value of all gasoline (high-grade, low-grade, self-service, and full-service) is presumed to have the same value as the value of self-serve unleaded regular. The tax on this value is a constant, and remains constant for six months.¹³ It is set by the current retail sales tax rate and a survey. This constant charge is converted to a “cents-per-gallon” levy by the Michigan Department of the Treasury twice a year.¹⁴ In effect, Michigan is dealing with the complexity of an *objective valuation* tax by doing the market analysis itself, making twice-yearly changes to the cents-per-gallon charge, and then requiring the entire retail gas trade in the state to adjust tax collection and reporting as the changes are implemented. None of this would be necessary under *subjective valuation*.

The Michigan VAT works like this. Assume 10 gallons of any type of gasoline is sold by a refiner (pipeline terminal operator, or maritime terminal operator) to a wholesaler, then to a distributor, and on to a retailer who sells to a final consumer. Assume further that the value of self-service regular is determined to be \$4.00 per gallon.

¹¹ VALUE ADDED TAX ACT, No. 50 at Art. 8 (1998) (Iceland).

¹² MICH. COMP. LAWS § 205.56a(1).

¹³ MICH. COMP. LAWS § 205.6a (allowing taxpayers to rely on Revenue Administration Bulletins setting the valuation rates).

¹⁴ MICH. COMP. LAWS § 205.56a

Therefore, at the current 6% rate¹⁵ each of the four businesses in this commercial chain would be required to collect \$2.40 in tax ($10 \times \$4.00 \times 6\% = \2.40)¹⁶ from the next business in line for the 10 gallons sold. Only the refiner's and the retailer's return will be returned with tax (in this example). Each of the intermediaries (the wholesaler, the distributor, and the retailer) would offset the \$2.40 in tax collected with a \$2.40 credit for taxes paid.¹⁷ For the wholesaler and the distributor this would produce a zero return.¹⁸

Only when the retailer sells to the final consumer is the true value of the gasoline measured and taxed. The retailer collects tax based on a *subjective* valuation (the invoice price, or the price at the pump). The actual price per gallon may be higher or lower than the presumed \$4.00 per gallon, but the rate remains 6% and the tax finally paid will reflect a \$2.40 credit taken for the tax paid by the retailer on his purchase from the distributor.

Thus, even though tax is collected at each stage of the retail gasoline trade, Michigan collects revenue at only two stages – the first¹⁹ and the last.²⁰ This compromise results from Michigan's preference for *objective* valuation, and rather than determining a separate objective valuation for each discrete level of the market (refiner, wholesaler, distributor, and retailer), Michigan uses the same market (the retail price of a gallon of self-serve unleaded regular) at all levels. This compromise does not diminish the VATs traditional benefits:

- there is a stable revenue flow, received in (two) stages through a fractioned payment mechanism, and
- there is a self-checking, self-enforcing mechanism in the commercial chain that does not burden businesses that pay the tax,²¹ because the tax is immediately credited when collected from the next business in the chain²² – and this provides a clear audit trail for the tax administration.

¹⁵ MICH. COMP. LAWS § 205.93(1)

¹⁶ Reduced to a “cents-per-gallon” amount, this example is based on 24 cents per gallon. After its most recent survey of self-serve unleaded regular gasoline the Michigan Department of the Treasury determined that the prepayment per gallon of gasoline (as of September 1, 2011) is 21.3 cents per gallon. Michigan Department of the Treasury, *Revenue Administration Bulletin 2011-3* at 3, available at: http://www.michigan.gov/documents/taxes/RAB2011-3_358465_7.pdf

¹⁷ MICH. COMP. LAWS § 205.56a(3)

¹⁸ Assuming, of course, that the gasoline is bought and sold in the same six-month period. For gas bought in one period and re-sold in another period different rates could well apply.

¹⁹ Remittances are due from refiners (pipeline terminal operators, and marine terminal operators) for all amounts received after the end of the prior month and before the 16th of the current month on or before the 25th of the month. Payments received after the 15th and the end of the month must be remitted on or before the 10th of the next month. MICH. COMP. LAWS § 205.56a(4).

²⁰ Retailers follow the normal sales tax schedule for returns and remittances, which is (generally) on or before the 20th day of each month for the taxes collected the preceding month. MICH. COMP. LAWS § 205.56(1) & MICH. COMP. LAWS § 205.96(1)

²¹ There is, of course, an administrative burden in filing tax returns, but the financial burden should end with the cost of completing the return. No additional taxes should be due. Timing issues are possible.

²² MICH. COMP. LAWS § 205.56a(3) (indicating that the actual credit taken on a return is for the difference between the amount of the tax paid, and the amount of tax collected, thereby allowing the intermediary to reimburse himself for taxes paid from the taxes collected, with only differences reported for refunds or payments).

ILLINOIS VAT

Beginning on March 1, 1984 Illinois required gasoline retailers to prepay three cents per gallon to their distributor, supplier or other reseller as an advance payment of the Retailers' Occupation Tax (ROT). The full amount would be collected from the customer at the time of a final sale, and reported by the retailer.²³ A credit was allowed against the ROT for prepaid taxes.²⁴ Distributors, suppliers, or other resellers of motor fuel were required to remit the prepaid ROT monthly.

On July 1, 2003 Illinois changed the prepayment tax rates,²⁵ but the structure of the tax was unchanged. Gasohol was now taxed at five cents per gallon, and other motor fuels at six cents per gallon. Certain other fuels were exempt.²⁶

Applying the same example used for Michigan above, the Illinois ROT works as follows. Assume 10 gallons of any type of gasoline is sold by a refiner (pipeline terminal operator, or maritime terminal operator) to a wholesaler, then to a distributor, and on to a retailer who sells to a final consumer. Assume further that the value of this gasoline at retail is \$4.00 per gallon. In this case the refiner will collect nothing from the wholesaler, and the wholesaler will collect nothing from the distributor. The distributor will collect 6 cents per gallon from the retailer (60 cents) and (a) remit this amount with its monthly return²⁷ and (b) provide the retailer (and the Department of Revenue) with a statement of the tax paid no later than the 20th day of the following month.²⁸ The retailer will collect \$2.50 from the consumer (10 x \$4.00 x 6.25% = \$2.50). The retailer's return will take a credit for 60 cents, and remit \$1.90 (\$2.50 less \$0.60 = \$1.90).

In spite of this prepayment regime, the Illinois Attorney General indicates that fraud at the retail level is "pervasive."²⁹ The Illinois gas tax is not "self-enforcing" (like a VAT), and the reason is easy to identify:

- The amount of the prepayment (five or six cents per gallon) is less than 20% of the tax collected on the final retail sale and it is not sufficient to deter fraud. Unreported (cash) sales³⁰ to consumers³¹ provide (roughly) a twenty-cent per gallon "tax profit."

²³ Prepaid Sales Tax on Motor Fuel Public Act 83-1080 (HB-1133).

²⁴ Illinois Department of Revenue, *Information Bulletin FY 84-27* (Feb. 1, 1984)

²⁵ Illinois Department of Revenue, *Information Bulletin FY 2004-05* (July 1, 2003)

²⁶ Exemptions applied to majority blended ethanol fuel, 100% biodiesel, and qualifying biodiesel fuel blends.

²⁷ 86 ILL. ADM. CODE §130.551. The form involved in this notification process is the four-part form PST-2. Parts A and B are completed by retailers and submitted with tax returns (part A) and kept for records (part B). The wholesaler will complete a separate form PST-2 and submit part C with the tax return and keep part D for records. The purpose of this filing is to allow the tax administration to check fuel purchases and tax payments.

²⁸ 35 ILL. COMP. STAT. §120/2d; 35 ILL. COMP. STAT. §120/2e

²⁹ Illinois Attorney General Lisa Madigan cited in: Melissa Harris, *Madigan: Tax Fraud Among Gas Stations Operators is "Pervasive,"* Chicago Tribune (Sept. 25, 2011) available at: <http://www.chicagotribune.com/business/ct-biz-0925-gas-tax-20110925.0,6417746.story>

³⁰ There is an assumption that gasoline fraud occurs primarily in cash sales, because credit card transaction will leave a digital trail.

- The prepaid ROT relies on the accuracy of the distributor's reporting, but does not incentivize its accuracy. Gasoline middlemen legitimately make taxable and non-taxable supplies (depending on their customer's commercial status), and as a result, incentives develop for the retailer to split-the-profits of the fraud with their suppliers to secure untaxed gasoline.

When gasoline retailer profit margins are examined it becomes clear why the ROT is not a "self-enforcing" tax. In 2010 the average (gross) profit margin for gasoline retailers was 16.9 cents per gallon. In 2009 the margin was 10.3 cents.³² Average selling expenses reduce this amount between 8 to 12 cents per gallon.³³ Thus, in an environment where profit margins are very thin (2 to 6 cents per gallon) the Illinois "tax margin"³⁴ can be ten times greater than the "normal" profit per gallon (amounts may vary depending on whether the gasoline is branded or unbranded, with unbranded margins being higher).³⁵

Because fraud was suspected, the Illinois Attorney General began an investigation of gasoline retailers in 2008. The investigation (ongoing as of October 2011) has identified 651 gasoline operators allegedly involved in cheating on the ROT. If ultimately proven, this would mean that more than 27% of the gasoline retailers in Illinois engage in tax fraud.³⁶ \$54 million in taxes have been recovered.³⁷

The statutory response to the Attorney General's investigation has been to raise the flat cents-per-gallon rate under the former law to an estimated measure of the full ROT amount due, determined under the Michigan's *objective valuation* methodology. Therefore, effective January 1, 2011 and continuing every six months thereafter, the Illinois Department of Revenue will determine the prepayment rate by multiplying the average selling price of motor fuel in the state (for the previous six months) by 6.25%,³⁸ and converting this amount to a cents-per-gallon charge. The whole amount will be the prepayment amount. As Chicago Business notes,

³¹ Taking an average self-serve regular price for gasoline in Chicago at \$4.00 per gallon, times the 6.25% tax rate yields a 25 cent per gallon tax. See: CBS Chicago, *Once Again Chicago has the Nation's Highest Gas Prices* (September 12, 2011) (indicating that the average price is \$4.02) available at: <http://chicago.cbslocal.com/2011/09/12/chicago-once-again-has-nations-highest-gas-prices/>

³² NACS Online (National Association of Convenience Stores) *First Half of 2010 Shows Strong Profit Margins for Gasoline Retailers*, (July 2, 2010) available at: <http://www.nacsonline.com/NACS/News/Daily/Pages/ND0702107.aspx>

³³ Scott Horsley, *Gas Stations Profit from More than Just Gas*, NPR (National Public Radio) (June 5, 2007) (citing average costs per gallon for payroll [4 cents], rent [4 cents] and credit card fees [4 cents]) available at: <http://www.npr.org/templates/story/story.php?storyId=10733468>

³⁴ If the 6.25% tax on \$4.00 per gallon gasoline is 25 cents, and if a retailer pays the prepayment ROT of 6 cents per gallon, the profits from fraud would be 19 cents per gallon. If the gasoline retailer could secure supplies without prepayment ROT the profits would be a full 25 cents per gallon. The retailer could "split" this profit by overpaying for gasoline that was untaxed.

³⁵ *Id.*

³⁶ Melissa Harris, CHICAGO TRIBUNE, *supra*29 note 29.

³⁷ *Id.*

³⁸ 35 ILL. COMP. STAT. §120/2d(e)

In a bid to stamp out tax evasion, starting in January, gas stations will have to pay 100% of their estimated sales taxes upfront when they take delivery of fuel from distributors ...³⁹

This is not quite enough to call the Illinois ROT on gasoline a VAT. Illinois has not gone as far as Michigan, and has not achieved the full range of administrative benefits that Michigan has achieved.

Only the gasoline retailer, not the entire commercial chain, prepays the ROT. There is a fractioned payment. Most of the ROT is pre-paid by the retailer, and remitted by the distributor. The remnant of the ROT (if any) is collected by the retailer from the final consumer, and remitted on the retailer's return. Because there are only two parties paying the tax over to the government (the retailer and the distributor), the ROT is not as strongly self-enforcing as the Michigan retail sales tax on gasoline, the NY VAT in hotel accommodations, or any of the major VAT systems around the globe. The ROT's weakness stems from not involving the entire commercial chain in the prepayment regime. In contrast with the Michigan VAT, the Illinois ROT remains vulnerable to collusion between the distributor and the retailer.

CONCLUSION

With rising gasoline prices, and razor thin profit margins in retail gasoline sales, jurisdictions that impose significant *ad valorem* consumption taxes on gasoline create a breeding ground for fraud. Six other states have statutes similar to those in Michigan and Illinois with *ad valorem* taxes on gasoline – California (6%), Georgia (4%), Hawaii (4%), Indiana (6%), Kentucky (9% of the average wholesale price of gasoline in the state), and West Virginia (5% variable wholesale tax on the statewide average wholesale price for gasoline in the state).

When profit margins fall to 5 cents per gallon (or less), and taxes rise to 25 cents per gallon (or more), as they did in Illinois, it is reasonable to anticipate that some retailers will suppress cash sales (if their internal systems and business relationships allows them to do so). This will permit the retailer to either directly increase profits or to drive business to more profitable convenience store offerings at the same location. There is anecdotal evidence that this is exactly what happened in Illinois.

[Illinois Department of Revenue Director Brian] Hamer believes the cheating has been going on for some time but peaked in 2008 when gas prices "went through the roof." [The Executive President of the Illinois Petroleum Marketer's Association William] Fleischli's theory is that the cheaters used the scam to boost their overall business. Lower prices [from tax reduced gasoline] would drive more traffic into a station's car wash or

³⁹ Paul Merrion, *Illinois Cracks Down on Gas Cheats*, Chicago Business (December 20, 2010) available at: <http://www.chicagobusiness.com/article/20101218/ISSUE01/312189984/illinois-cracks-down-on-gas-tax-cheats#axzz18y484aek>.

minimart, where sales of bottled water, for instance, provide higher profit margins than gasoline.⁴⁰

However, razor thin profit margins point in another direction. They suggest that Michigan and Illinois could easily move to *subjective valuation* in their prepaid gasoline tax regimes. Low profit margins suggest that the “value added” at the final stage of the retail gasoline trade is relatively low, and the tax could be structured (like a VAT) so that 6% (Michigan) or 6.25% (Illinois) of the *invoice price* for gasoline is due at each stage along the commercial chain. This would:

- eliminate the need for the revenue administration to determine the statewide average retail price of a gallon of self-serve unleaded regular twice a year, and convert it to a workable cents-per-gallon charge – the tax would automatically (and immediately) track price changes in gasoline,
- align the tax more closely with the type of gasoline purchased – more expensive grades would be assessed a higher tax, and lower grades a lower tax, and
- eliminate the search for mismatched purchases (possibly from multiple providers) with retail gasoline sales, and then subdividing these sales among the various grades of gasoline and types of service (self-service and full service) charges – in Illinois this function is embodied in the four-part PST-2 form.

If Michigan moved to *subjective valuation* it would have a fully recognizable VAT on an EU model, similar to the VAT adopted by New York in its hotel accommodations tax. The tax on gasoline would be collected in slices all along the commercial chain in accord with the subjective value that was added at that stage.

The same would *not* be true for Illinois, because the ROT in the retail gasoline trade is binary (only the distributor and the retailer are involved). Illinois would need to include the entire commercial chain in the tax regime (like Michigan). Doing this would solve one of Illinois’ major problems with the current tax system – distributors would now be incentivized to accurately report purchases and re-sales of gasoline, because their tax refund would hang in the balance. Presently their incentive is to cooperate as much as possible with the retailer.

There is a second side to the fraud problem that Illinois (and perhaps Michigan) is struggling with. If it is possible through the adoption of a VAT-like structure in the retail gasoline trade to accurately collect taxes on all the value added up to the purchases made by the retailer, fraud may still not be eliminated. Cash sales to final customers can be suppressed. VATs do not prevent suppression fraud; they only reduce the amount of tax that can be lost through suppression.⁴¹ Collecting the full tax on the value added at the final stage remains a problem.

⁴⁰ Melissa Harris, CHICAGO TRIBUNE, *supra* note 29.

⁴¹ Richard T. Ainsworth & Urs Hengartner, *Quebec’s Sales Recording Module (SRM): Fighting the Zapper, Phantomware, and Tax Fraud with Technology*, 57 CANADIAN TAX JOURNAL 715 (2009) (examining sales suppression fraud in Quebec and the solutions offered in Quebec and the EU).

For example, if tax is collected on the value of 10 gallons of gasoline that pass through a commercial chain to a retailer, it is still possible for the retailer to sell all 10 gallons to final customers, report sales of 9, and retain the tax⁴² and the profit from the tenth gallon. This is most common when final sales are in cash and when records of the sale can be digitally eliminated from business records.

Skimming cash receipts is an old-fashioned tax fraud. Businesses that skim frequently keep two sets of books (one for the tax man, the other for the owner). In its simplest (non-technological) form there are two tills, and the cashier simply diverts some cash from selected sales into a secret drawer. A record of the diversion may be maintained, but it will be kept outside the formal accounting system.⁴³

Technology is changing how businesses skim. The agents of change are software applications – phantom-ware and zappers. Phantom-ware is a “hidden,” pre-installed programming option(s) embedded within the operating system of a modern electronic cash register (ECR). It can be used to create a virtual second till and may preserve a digital (off-line) record of the skimming (a second set of digital books). The physical diversion of funds into a second drawer is no longer required, and the need for manual recordkeeping of the skim is eliminated. Because phantom-ware programming is part of the operating system of an ECR its use can be detected with the assistance of a computer audit specialist.

Zappers are more advanced. Zappers are special programs added to ECRs or point of sale (POS) networks. They are carried on memory sticks, removable CDs or can be accessed through an internet link. Because zappers are not integrated into operating systems their use is more difficult to detect. Zappers liberate owners from the need to personally operate the cash register. Remote skimming of cash transactions is possible without the knowing participation of the cashier who physically rings up the sale. This attribute of Zappers allows the incidence of skimming fraud to migrate beyond the traditional “mom and pop” stores. Zappers allow owners to place employees at the cash register, check their performance (monitor employee theft), but then remotely skim sales to cheat the taxman.⁴⁴

⁴² If a VAT is in place the ROT that would be lost is only the ROT on the value added at the final state. Other taxes may be lost in full. For example, this paper has not considered the 18.4 cents per gallon federal tax. In cases where the retailer suppresses the sale of gasoline, this tax is also lost, and would be available to increase bottom-line profits or to reduce prices of gasoline to drive customers into the gas station where higher profits are obtained through convenience store sales.

⁴³ See for example the use of double tills to manually skim cash receipts in the UK at Aleef Garage Ltd. This was a £5.3 million tax fraud, and according to Steve Armitt, Group Leader HMRC Criminal Investigations indicated, “... the investigation was made all the more difficult because of the closed ranks of the employees involved some of whom were close family members ... [t]hose involved tried to make it as difficult as possible for the cheating to be discovered.” HMRC News Release, Company Directors Jailed for £5million Fraud 1 (Nov. 13, 2007) available at <https://www.gnn.gov.uk/content/detail.asp?NewsAreaID=2&ReleaseID=330199>

⁴⁴ See: Richard T. Ainsworth, Zappers and Phantomware – Are State Tax Administrators Listening Now? 40 State tax Notes 103 (July 14, 2008) (reviewing the Zapper and phantomware discussions at the Federation of Tax Administrators meetings over the years).

The IRS has uncovered Zappers in Michigan that have allegedly been used to fund terrorist operations,⁴⁵ and Revenue Quebec has litigated over 250 cases where Zappers have been used to suppress sales in that province.⁴⁶ Estimates of tax losses from Zappers and other sales suppression technology in Illinois restaurants are approximately \$1.075 billion annually.⁴⁷ Zappers are very easy to install in any ECR.

There are a number of technologies available to assist tax authorities in the prevention of sales suppression.⁴⁸ A common strategy is to require businesses that have engaged in suppression frauds to install security devices as a condition of relicensing the business.⁴⁹ These systems encrypt and record all transactions, and preserve business records for up to ten years.

The recommendation of this paper is that states that opt to tax gasoline sales on an *ad valorem* basis should strongly consider structure the tax as an industry-specific VAT with subjective valuation. Secondly, they need to be engaged in preventing sales suppression by mandating that retail gasoline stations with a history of fraud install certified recordkeeping security systems.

⁴⁵ Press Release, U.S. Dept of Justice, Eastern District of Michigan, LaShish Financial Manager Sentenced for 18 months for Tax Evasion (May 15, 2007) available at: http://www.cybersafe.gov/tax/U.S.aopress/2007/txdv072007_5_15_EIAouar.pdf; Press Release, U.S. Dept of Justice, Eastern District of Michigan, Superseding Indictment returned Against LaShish Owner (May 30, 2007) available at: http://www.justice.gov/tax/usaopress/2007/txdv072007_5_30_chahine.pdf

⁴⁶ Roy Furchgott, *With Software, Till Tampering Is Hard To Find*, NYT C6 (August 20, 2008).

⁴⁷ The author's estimate based on a comparison of Illinois and Quebec GDP on an adjusted purchase power parity basis, and assuming that restaurant sales in Illinois are roughly comparable to those in Quebec. ie

⁴⁸ See the discussion of BMC Inc. development programs in Richard T. Ainsworth, *Zappers – Retail VAT Fraud* INTERNATIONAL VAT MONITOR (May/ June 2010) 175. BMC responded to the Belgian government's need for ECR security with remote audit capability by further developing its eTax device (which was one of the few fraud prevention devices certified under SWEDAC, the Swedish government's data security agency). The result of this development program was the Sales Data Controlled (SDC) that incorporates the German government's smart card (developed by INSIKA).

⁴⁹ This was the approach adopted by Judge Lise Gaboury of the Court of Quebec in the fraud case against the 28-restaurant chain *Casa Grecque*. In this instance, the fraud involved installing an automated sales skimming programme (Zapper) in the point of sale system (the networked electronic cash register). In the Budget Speech of 23 March 2006, the Minister of Revenue had announced the adoption of an automated fraud prevention system [*module d'enregistrement des vents*], which would be voluntary until 2011. Judge Gaboury noted that the system was expected to be available by 1 October 2008 and required all of the *Casa Grecque* restaurants to adopt it at this time as a condition of remaining in business. Revenue Quebec, *Des restaurants de la chaîne Casa Grecque coupables de fraude fiscale* (in French only) available at: http://www.revenu.gouv.qc.ca/eng/ministere/centre_information/communiques/ev-fisc/2006/10juillet.asp