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DATA FIRST – TAX NEXT:
HOW FIJI’S TECHNOLOGY CAN IMPROVE NEW ZEALAND’S “NETFLIX TAX”
(Part 1)

Richard T. Ainsworth

Over the past decade the VAT in the South Pacific has been changing. More change is coming. Change is needed in both the larger economies (Australia and New Zealand) and the smaller ones (the Pacific Island Countries or PICs).¹ The changes we see currently are propelled by cross-border remote sales of services and low-value goods.

There is considerable pressure on all VATs (not just those in the South Pacific) to respond to technology-accelerated cross-border sales. However, the pressure is particularly intense for residence-based VAT systems, and residence-based VATs are the norm in the South Pacific.

The government response in the South Pacific is not uniform. The larger economies have relied on statutory remedies; the smaller economies are turning to technology. The larger economies are crafting complex, extra-territorial compliance provisions targeting remote sellers. The smaller economies are mandating secure digital invoices, real-time reporting, with mechanisms for proof of audit, that is setting the stage for a B2C reverse charge mechanism, and later adoption of a blockchain-based information exchange.

Press attention is being drawn to the larger economies through catchy newspaper headlines. There is the “Netflix Tax” (for rules directed at cross-border supplies of services)² and the “Amazon Tax” (for rules directed at cross-border supplies of low-value goods).³ Less press coverage is captured by the technology advances in the smaller economies. The headlines in Fiji, for example, are not exactly attention-grabbing. Fiji has announced the adoption of electronic fiscal devices (EFDs), a VAT monitoring system (VMS), and the Fiji Revenue and Customs Service (FRCS) is promoting its free app called “the Receipt Verificator.”⁴

Clearly, technologists are approaching remote sellers differently than are statutory draftsmen. In a residential VAT a technologist will focus on improving domestic (residential)

¹ The Pacific Island countries are: Cook Islands (NZ dependency), Fiji, Kiribati, Republic of Marshall Islands, Federated States of Micronesia, Nauru, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Timor-Leste, Tokelau (NZ dependency), Tonga, Tuvalu, and Vanuatu. Fiji is the largest country in the group which has a population of about 2.3 million, covering hundreds of islands over an area that is roughly 15% of the globe’s surface. Eleven of these sixteen island countries have a VAT.

In the period from 2002 until 2012, Tonga, Niue and Tuvalu joined Papua New Guinea, Fiji, Vanuatu, Samoa and the Cook Islands in implementing a GST or VAT. Plans for the introduction of a VAT are still working their way through the political system within the Federated States of Micronesia and the Marshall Islands. In addition, a VAT was introduced in Kiribati in 2014, and Timor-Leste imposes a sales tax on imported goods and on some designated services.

² Harsh Arora, *Understanding Australia’s “Netflix Tax”* 80 TAX NOTES INTERNATIONAL 931 (December 14, 2015)

³ *Government Announces “Amazon Tax” to Tax Online Goods* (May 1, 2018) Radio New Zealand (RNZ) available at: <https://www.radionz.co.nz/news/political/356351/govt-announces-amazon-tax-to-apply-gst-to-online-goods>

⁴ Fiji News, *Companies to install EFD system by June*, (December 17, 2017) available at: <http://www.fbc.com.fj/fiji/58054/companies-to-install-efd-system-by-june>

compliance. No *new* extra-territorial tax (requiring non-residents to help collect and remit it) is added. Instead, there is simply a push for more granular data and an effort to capture each taxable transaction in real-time. Technologists are digitally preserving the supply chain. Each step is recorded so that the receipt of cross-border services, or the purchase of even the smallest-valued goods can be minutely identified and subjected to tax under existing rules.

An additional level of enforcement may be needed. It too will be technology-based, and should borrow from the Brazilian prioritizing of digital over paper records known as SPED (*Sistema Publico de Escrituracao Digital* or the Public System for Digital Accounting).⁵ SPED, or something similar, is undoubtedly part of the trajectory of Fiji's digital reform. It should be part of New Zealand's "Netflix Tax."

Considered narrowly, this series of papers is a specific proposal that New Zealand's "Netflix Tax" should be reconfigured and strengthened with the technological vision that is embedded in Fiji's VAT reform.

Considered more broadly, this is a multi-part comparative study of the way a "Netflix Tax" should be adopted. It starts with New Zealand's reform, a *statutory fix* to the current problem, and then considers how New Zealand could benefit from Fiji's technology. It suggests that if Fiji's *technological fix* to the remote services problem had been considered by New Zealand, then the "Netflix Tax" would be simpler to administer, and the remote services transactions would be far easier to audit.

But these papers go further. They also indicate that New Zealand, or any jurisdiction that follows this path, should very quickly be able to craft a digital B2C reverse charge mechanism. The potential to do so is inherent in the full development of Fiji's technology. In addition, such a jurisdiction should be ready to migrate to a multijurisdictional blockchain where a real-time information exchange is possible. Such a blockchain is the *next very necessary step* in modern cross-border VAT administration.⁶

The revenue threat posed by cross-border sale of low-value goods (the "Amazon Tax") will be considered in a separate paper.⁷

Why focus on New Zealand and Fiji?

⁵ Newton Oller de Mello, Eduardo Mario Dias, Caio Fernando Fontana & Marcelo Alves Fernandez, *The Implementation of the Electronic Tax Documents in Brazil as a Tool to Fight Tax Evasion*, PROCEEDINGS OF THE 13TH WORLD SCIENTIFIC AND ENGINEERING ACADEMY AND SOCIETY (WSEAS) INTERNATIONAL CONFERENCE ON SYSTEMS (2009) 449, 453, available at: <http://dl.acm.org/citation.cfm?id=1627575&picked=prox>.

⁶ It is important to realize that Fiji's reform is underway as this paper is being drafted, and there is no public declaration of how Fiji intends to respond to the "Netflix" and "Amazon" situation, but we can "connect the dots" or "follow the direction" of the reform and intuit what "should be" the Fijian approach. If this "presumed approach" turns out to not be adopted, or adopted in a different manner, then this portion of the paper will constitute the authors "proposals for change."

⁷ At the present time New Zealand's position on the "Amazon Tax" is no more than a proposal sketched in a discussion document. A full examination of the New Zealand approach is premature. Inland Revenue, Policy and Strategy, *GST on low-value imported goods: An offshore supplier registration system – A government discussion document* (May 2018) available at: <http://taxpolicy.ird.govt.nz/sites/default/files/2018-dd-gst-low-value-goods.pdf>

New Zealand and Fiji are tax policy leaders in their respective economic groups (the large island and small island economies of the South Pacific). The New Zealand Goods and Services Tax (GST) is the universal model for the VAT in the South Pacific. Fiji is the largest, and most influential of the PICs, and like most of the PICs it adopted the New Zealand GST (in 1992), "... with very little change (other than calling it a VAT instead of a GST)."⁸

In the 1980's New Zealand took the development-lead. The Goods and Services Tax (GST)⁹ it created was a broad-based, single rate, *residence* VAT. It departed from the more common *source-based* EU VATs which taxed *transactions* only when they were geographically *sourced* to a jurisdiction.¹⁰

The *residential* premise of the New Zealand GST fits an island economy very well. *Residents* are taxed, because residents consume domestic value added. Borders are clearly identified, and cross-border trade is controlled through customs (at ports or airports). Non-residents are not subject to tax, and have no obligation to assist in tax identification, collection or remission. To the extent consumption occurs elsewhere, it should be taxed elsewhere. In the New Zealand GST, there is no concern with determining the taxability of a transaction based on whether or not it is *sourced* within New Zealand. Instead, the question is: was the transaction entered into by *residents* (supplied by, and supplied to residents)?

Things have changed. Having a tax that is well suited for an old-style island economy, an economy that primarily imported *goods*, does not mean that we have a tax that is well suited for a modern island economy, where roughly equal values in goods and services are imported.

Revenue losses

According to New Zealand's Inland Revenue, "It is likely that around \$180 million of [New Zealand's] GST is forgone on cross-border services, intangibles, and goods per year (of which about \$40 million relates to services and intangibles)."¹¹ Because the Fiji and New Zealand VAT/GSTs are so nearly identical we can reasonably extrapolate rough figures for

⁸ Rodger S. Muir, *The Goods and Services tax: Reflections on the New Zealand Experience, Six Years On*, 3 REVENUE LAW JOURNAL 100 (1993) available at: <http://www.austlii.edu.au/au/journals/RevenueLaw/1993/8.pdf>

⁹ A GST is a VAT with a different name.

¹⁰ There are four major variants to VAT design: (a) the dominant EU model, (b) the secondary New Zealand model, and two minor application (c) the Japanese Consumption Tax, and (d) the Canadian harmonized (federal/ provincial) GST. Alan Schenk, Victor Thuronyi & Wei Cui, VALUE ADDED TAX: A COMPARATIVE APPROACH (2014) at 43.

¹¹ New Zealand Inland Revenue, *GST: Cross-border services, intangibles and goods. A government discussion paper* (2015). <https://taxpolicy.ird.govt.nz/sites/default/files/2015-dd-gst-cross-border.pdf>

losses in Fiji.¹² The estimate would be that Fiji's revenue loss is within a range of 11.4% to 12.54% of New Zealand's losses, or between NZ\$20.52 million¹³ to NZ\$22.5 million.¹⁴

Caught by surprise – didn't we see this coming?

Two decades ago four IMF value added tax specialists undertook an assessment of global VAT adoption. The VAT had been introduced less than fifty years earlier, but already 120 countries embraced it. There were good reasons to try to understand how the VAT worked, why it worked, and where it worked the best. The text they produced, *The Modern VAT*,¹⁵ quickly became the seminal resource for tax academics teaching comparative VAT and for VAT administrators around the world.

The Modern VAT does not isolate the South Pacific region, or the Pacific Island Countries (PICs) for special consideration, but it came close to doing so. The text emphasizes that, based on data available through the summer of 1999,¹⁶ the VAT appeared to perform especially well in small island countries.

By the standard criteria, the VAT has ... performed well in small countries, with some sign that *it has performed especially well in small islands*.¹⁷ The IMF recommended VATs for New Zealand (1986)¹⁸ as well as each of the PICs including Fiji (1992).¹⁹ In its discussion of efficiency ratios *The Modern VAT* isolates Fiji for its exceptional VAT-performance.²⁰

¹² The extrapolation is not exact. The tax rates are not identical. The New Zealand GST rate which was 10% initially, had been raised to 12.5%. On October 1, 2010 the rate was increased to 15%. Fiji's rates have been going in the other direction recently. As of January 1, 2017, the rate was lowered to 9%.

¹³ 12.54% (or NZ\$22.5 million) estimate based on GDP. OECD Data records New Zealand's GDP at US\$40.69 billion <https://data.oecd.org/new-zealand.htm>, and Tradingeconomics.com puts Fiji's GDP at US\$4.63 billion <https://tradingeconomics.com/fiji/gdp>. Thus, Fiji's economy is roughly 11.37% the size of New Zealand's.

¹⁴ 11.4% (or NZ\$20.52 million) estimate based on combined population and GST/VAT tax rates. Fiji's population of 911,174 is roughly 19% that of the New Zealand's 4,749,598. The Fiji standard VAT rate (9%) is 60% of the standard New Zealand GST rate (15%), and its VAT rate is 66.66% that of the NZ GST. See: Worldmeters.com <http://www.worldometers.info/world-population/new-zealand-population/> & <http://www.worldometers.info/world-population/fiji-population/>

¹⁵ Liam P. Ebril, Michael Keen, Jean-Paul Bodin, & Victoria Summers, *THE MODERN VAT*, International Monetary Fund (2001).

¹⁶ *Id.*, at 8, n. 17.

¹⁷ *Id.*, at 169 (emphasis added).

¹⁸ Richard Bird & Pierre-Pascal Gendron, *THE VAT IN DEVELOPING AND TRANSITIONAL COUNTRIES* (2007) at 20.

¹⁹ Not all people agreed with the IMF's VAT recommendation in Fiji, in the beginning when the rate was 10%, and then a short time later when the rates were increased to 15%:

One of the very questionable aspects of our current economic system has been the introduction of Value added Tax (VAT). It is a relatively new tax and was introduced in Fiji in 1992 on the recommendation of the International Monetary Fund. At the time of its introduction we were told, "It is good for you and me and Fiji."

Kevin J. Barr, *VAT of 15% - Is it Morally Acceptable?* PEOPLE'S COMMUNITY NETWORK – FIJI (August 15, 2015) available at <https://pcnfiji.wordpress.com/2015/08/05/vat-of-15-is-it-morally-acceptable/>; Paresh Kumar Narayan, *The Macroeconomic Impact of the IMF Recommended VAT Policy for the Fiji Economy: Evidence from a Cge Model*, 15(3) REVIEW OF URBAN AND REGIONAL DEVELOPMENT STUDIES (November 2003).

²⁰ Contrasting Fiji with another large island complex in the Pacific (the Philippines), the IMF indicated:

In both the Philippines and Fiji, ... the standard rate of VAT is 10 percent; yet in Fiji the VAT collects over 6% of GDP in revenue whereas in the Philippines the tax yields less than 3 percent of

The authors point to several factors that might account for the strong performance of the VAT in small islands, including "... social structures that facilitate tax enforcement [and] ... protection against smuggling [that] may come with remoteness ..."²¹ However the strongest factor is probably international trade, "... performance of the VAT is stronger, all else equal, in economies with heavier reliance on international trade ... small economies tend to rely more on trade, and so would be expected to have a higher C-efficiency."²² But the IMF did not ask the next question – what happens if international trade shifts from primarily imported *goods* to imported *services*?

What the IMF did not see (and what it did not factor into its analysis for *The Modern VAT*) was that international commerce was indeed in the process of *pivoting* away from trade in goods toward more balanced trade in goods and services. It particularly did not foresee that *virtual marketplaces*²³ were going to "take off" in the late 1990's. Unfortunately, just as the data base for *The Modern VAT* was finalized (1999) the shift to services went into overdrive.

Confirming the pivot to services

In 2017 the IMF confirmed and quantified what it had missed earlier. There had been a clear and accelerating pivot toward *services* in cross-border trade over a 50-year period. The IMF study provides analytical-support for the shift. The shift was global.²⁴ The study noted: Using a newly constructed dataset on trade in services for 192 countries from 1970 to 2014, ... [we have determined] that *services currently constitute one-fourth of world trade* and an increasingly important component of global production. ...

GDP. Clearly there must be significant differences of design, behavior and/or enforcement between the two VATs. [This application of] ... the "efficiency ratio," defined as the ratio of VAT revenues to GDP divided by the standard rate (expressed as a percentage), [is] ... widely used as a summary indicator of the performance of the VAT ...

THE MODERN VAT at 40.

Even more striking are the results of *The Modern VAT's* application of Consumption-efficiency (C-efficiency) ratios to the IMF data base. C-efficiency ratio is defined as the ratio of the share of VAT revenues in consumption to the standard rate (rather than in GDP, as is the case for the "efficiency ratios"). C-efficiency ratios measure performance relative to *consumption*, rather than income. In this more refined exercise, small islands (for this purpose, "small island economies" are defined as islands with populations of under 1 million, plus San Marino. *Id.*, at 5). (taken as a whole) display not only the highest *efficiency ratio* (48%), but also the highest *C-efficiency ratio* (83%) of any region or grouping of counties in the world.

The other regions have the following efficiency ratios: Sub-Saharan Africa (27%); Asia and Pacific (35%); Americas (37%); EU (plus Norway & Switzerland) (38%); Central Europe & BRO (36%); North Africa and Middle East (37%); and the following C-efficiency ratios: Sub-Saharan Africa (38%); Asia and Pacific (58%); Americas (57%); EU (plus Norway & Switzerland) (64%); Central Europe & BRO (62%); North Africa and Middle East (57%). *Id.*, at 41, Table 4.1.

²¹ *Id.*, at 169.

²² *Id.*, at 169.

²³ A technology-based service that facilitates the sale of low-value goods (e-Bay, Amazon.com etc.).

²⁴ It needs to be noted that the IMF study only concerns exports. The data is not yet assembled on imports. It is the importation which attracts the VAT (either importation for immediate consumption [B2C], or importation for re-sale [B2B]). For the present paper an assumption is made that imports and exports of tradable services are equally spread among the members of the global community. Personal e-mail communication with Ke Wang, one of the authors of the IMF study (April 2, 2018) on file with author. The full IMF (export) database is available on the IMF web site with the paper itself.

*exports of services are not only gaining strong momentum ... [but they are] catching up with exports of goods in many countries, ... [and] they could also trigger a new wave of trade globalization. ... The share of services export in total goods and services export has doubled from 17 percent in 1970 to over 32 percent by 2014.*²⁵

As New Zealand became aware that remote cross-border service transactions were defeating the GST, statutory draftsmen began looking at EU-styled sourcing rules for the changes. New Zealand's new rules assert (limited) extra-territorial jurisdiction over foreign suppliers based on the *sourcing of their supplies to New Zealand* (not on the supplier's residence).²⁶ This is a significant policy shift for a *residential VAT*.

It is reasonably clear that the broad trajectory of Fiji's current VAT reform will (when the time comes) approach the *remote cross-border services* problem in a manner very different from that of New Zealand.²⁷ The logic of the current reforms makes this clear. Fiji has the mechanisms in place to capture the value of remotely supplied services by compelling the production of secure digital invoices on service imports that will (a) preserve the details of cross-border trade, (b) transmit transaction data in real-time to the tax authority, and (c) provide a digital mechanism (QR codes on invoices and receipts) for immediate certification of each transaction by taxpayers and government auditors. Enforcement will flow from disclosure, and should be buttressed with Brazilian-like SPED legislation making the legal enforceability of the invoice dependent on the invoice being a *fiscal invoice*. At this point Fiji will be one step removed from being the first jurisdiction to automate a B2C reverse charge (comparable in difficulty to efficiently collecting an American *use tax*).

This analysis proceeds as follows. After the overview, at (1) below, each of the six major New Zealand *Netflix law changes* is considered and then associated with a *Fijian technological response* to the same issue. There are seven major topic areas:

1. New Zealand GST & Fiji VAT – approaches to remotely supplied services by non-resident suppliers;
2. Policy change – why reform is necessary;
3. Definitional – what is a “remote service,” customer residency, and the main rule;
4. Errors in compliance – what happens when a non-resident supplier makes errors – charging GST/VAT where it should not;
5. Marketplace rules – a potential (but partial) solution to non-compliance – deeming digital/ online (service) marketplaces to be taxpayers;

²⁵ Prakash Loungani, Saurabh Mishra, Chris Papageorgiou, & Ke Wang, *World Trade in Services: Evidence from a New Dataset*, IMF WORKING PAPERS (abstract) *emphasis added*, February 2017 available at: <https://www.imf.org/en/Publications/WP/Issues/2017/03/29/World-Trade-in-Services-Evidence-from-A-New-Dataset-44776>

²⁶ There are four major variants to VAT design: (a) the dominant EU model, (b) the secondary New Zealand model, and two minor application (c) the Japanese Consumption Tax, and (d) the Canadian harmonized (federal/ provincial) GST. Alan Schenk, Victor Thuronyi & Wei Cui, *VALUE ADDED TAX: A COMPARATIVE APPROACH* (2014) at 43.

²⁷ The Fiji approach to the taxation of cross-border services is largely based on following the logic of the current reform (which is only partially complete). Thus, the “Fiji approach” is in a sense *presumed* in this study. It is the clear “next step” in the Fiji reform.

6. B2C double taxation issues – resolving problems of the final consumer being taxed in multiple jurisdictions;
7. Reverse charge compliance with dual status buyers.

(1) NEW ZEALAND & FIJI’S APPROACH
TO REMOTELY SUPPLIED SERVICES²⁸

Both New Zealand and Fiji have responded to the revenue threat posed by remote providers of services. In some respects, New Zealand is further along than Fiji, although in others it is Fiji which is in the lead. The approaches should be considered together.

From a high level, there are three development phases – (a) in an initial phase: business and consumer purchasers of otherwise taxable services from remote service providers are considered exempt (actually or effectively); (b) at an intermediate phase: services supplied from remote suppliers are fully or partially taxed through the application of a B2B reverse charge provisions; and (c) in the current (and future) phase: services supplied from remote suppliers to businesses and final consumers are fully subject to tax. The mechanisms applied in the final phase are either a statutory *Netflix Tax* or a comprehensive digital invoice regime that utilizes independent, real-time, and encrypted reporting of *all taxable transactions* to the tax administration.

(a) Initial phase and overview

The New Zealand GST²⁹ was drafted in 1984-1985, and introduced on October 1, 1986. The New Zealand statute was a pure residence-based tax. New Zealand did not reach the supply or the supplier of remotely supplied cross-border services. A non-resident supplier could not be a New Zealand *taxpayer* under the statute, and could not be compelled to collect the tax from a New Zealand resident on cross-border sales. That was the end of the story.

Fiji’s VAT was largely an adoption of New Zealand’s GST in 1992. There were not many notable differences in the laws. However, with respect to cross-border supplies of services from non-residents, Fiji applied a reverse charge whenever *businesses* made these purchases.³⁰ Section 21, which was included in the original draft of the Fiji VAT, sets out the reverse charge

²⁸ Year-after-year, the most common and largest VAT frauds uncovered in Fiji are the use of fictitious invoices to secure inappropriate refunds. See for example, (in 2017) Arieta Vakasukawaga, *Firm Faces \$2.8m Tax Bill*, FIJI SUN (February 4, 2017) indicating that “routine checks” and VAT trend analysis uncovered the fictitious invoice scam whereby refunds in some months exceeded gross sales, *available at: <https://www.pressreader.com/fiji/fiji-sun/20170204/281986082290639>*. Also see: the *Regional Workshop on VAT Fraud and Customs Commercial Fraud* (July 26, 2017) conducted by the OCO Secretariat in partnership with PFTAC and PITTA, *available at: <https://www.ocosec.org/regional-workshop-on-vat-fraud-and-customs-commercial-fraud/>*; Jyoti Pratibha, *Ba Man Faces VAT Fraud Charges*, FIJI SUN (June 27, 2014) involving \$31,689.03 in fraudulent refunds from July 25, 2008 through September 12, 2009, *available at: <http://fijisun.com.fj/2014/06/27/ba-man-faces-vat-fraud-charges/>*

²⁹ The New Zealand GST is available at: <http://www.legislation.govt.nz/act/public/1985/0141/latest/DLM81045.html>. See section 8(4B) for reverse charge provisions.

³⁰ The Fiji VAT is available at: <https://www.frsc.org.fj/wp-content/uploads/2012/10/VALUE-ADDED-TAX-DECREE-1991-REVISED-UP-TO-8th-January-2016.pdf>. See Section 21 for reverse charge provisions.

rules. It is not clear how much revenue (if any) this provision generated, particularly in the early days of the tax.³¹

In 1999 New Zealand undertook a comprehensive review of its GST. This review highlighted the unequal treatment of imported goods and services. The issue was narrowly framed around downloaded software, but other services were clearly implicated. The clearest example was that imported CDs were subject to GST (as a good), but the same programming downloaded through the internet was exempt (as an imported service).³²

The *1999 Review* offered three solutions: (1) change the GST to an origin-basis tax; (2) register off-shore, non-resident suppliers and require them to collect and remit the GST; and (3) apply a reverse charge to business purchases.

A *2001 IRD Paper*³³ provides detailed analysis. The preferred option was (3), the business reverse charge.³⁴ But this reverse charge was useless when remote sales are made directly to final consumers, and this was precisely where the commercial market was going.

New Zealand quickly realized the threat, and began crafting the “Netflix Tax” as a response. This was a limited (but complex) adoption of option (2) from the *2001 IRD Paper*. The “Netflix” Tax encourages, deems, and sometimes compels off-shore, non-resident suppliers to register as New Zealand taxpayers. It forces non-residents to collect and remit the GST on sales to New Zealand residents.

(b) Intermediate phase: B2B reverse charges

A reverse charge requires a buyer to self-report GST/VAT. Resident buyers do not pay GST/VAT to non-resident suppliers. Non-resident suppliers do not report transactions directly to the buyer’s tax authority (although an information exchange mechanism could provide this information by way of the foreign tax authority).

³¹ There are no published records of Fiji audits where the basis of the assessment is a reverse charge on cross-border services.

³² Inland Revenue, *GST: A Review – a Tax Policy Discussion Document* (March 1999) available at: <https://taxpolicy.ird.govt.nz/sites/default/files/1999-dd-gst-review.pdf> (the fact that more contemporaneously substantive issues were not considered in 1999 is a reflection of how poorly we saw how fast this field was moving, given that the GST’s “fist day” was October 1, 1986, and New Zealand was first connected to the internet in April of 1989 [government and universities only], the first-ever website was published in August of 1991 [info.cern.ch], and by the year 2000 New Zealand had only 830,000 internet users.)

³³ Inland Revenue – A government discussion document: Michael Cullen, Paul Swain & John Wright, *GST and Imported Services: A Challenge in an Electronic Commerce Environment* (June 2001) available at: <https://taxpolicy.ird.govt.nz/sites/default/files/2001-dd-gst-imported-services.doc>

³⁴ *Proposal for a Council Directive Amending Directive 77/388/EEC as regards the Value Added Tax Arrangements Applicable to Certain Services Supplied by Electronic Means*, COM (2000) 349 final. The EU had already decided the same question – differently. As a source-based jurisdiction, it simply mandated the registration of off-shore, non-resident suppliers. An easy resolution for the EU however, is a very difficult proposition for a *residence-based* jurisdiction. How can you place a tax collection burden on a non-resident, when the basis of your tax is that residents are burdened by the tax and non-residents are exempt? Even if you decide to change this premise, how do you enforce it? In other words, how can you hope to enforce this rule if you are not in control of a major commercial market that the suppliers you seek to regulate are anxious to access (like the EU)?

A B2B reverse charge is essentially an accounting procedure. The resident buyer reports the (import) transaction as the “seller” and simultaneously reports an offsetting purchase as the “buyer.” No net VAT is remitted to the tax authority, but the authority is put on notice that a transaction has occurred.

When operating without missing traders (taxpayers who do not report purchases), a reverse charge is the perfect solution to cross-border B2B sales for a residence-based VAT. This mechanism avoids the enforcement problem of trying to persuade non-resident suppliers to register, even though it creates the problem of getting the resident businesses to report. At the present time there is no GST/VAT which has been able to implement a B2C reverse charge mechanism.

Even though Fiji had a comprehensive reverse charge provision from the beginning of its VAT (1999), it was always B2B, never B2C. New Zealand had even less protection from remotely supplied services. It had no reverse charge provision in 1986, and only adopted a selective B2B reverse charge in 2005. New Zealand’s reverse charge was always more limited than Fiji’s.

New Zealand targeted its reverse charge narrowly. The reason for this is relatively clear. If an imported service will become a value added part of an onward business sale within New Zealand, then the only concern should be with imports destined for exempt entities or for entities that are substantially engaged in making exempt sales. New Zealand’s statute required:

- (a) that the subject services *would have* attracted the GST if they had been supplied by a New Zealand business, and
- (b) that the recipient makes more than a minimal level of exempt (or other non-taxable) onward supplies.

New Zealand’s reverse charge was effectively limited to New Zealand banks, insurance companies, and other financial intermediaries that were utilizing off-shore computing services. New Zealand explained that it was leveling the playing field in this market segment, and it believed it was securing most of the revenue it was losing to remote services.³⁵

The expansion of the Internet soon made it apparent that much more revenue was being lost. Neither a limited B2B reverse charge (New Zealand), nor a full B2B reverse charge (Fiji) was going to be adequate to the task of capturing the GST/VAT that was being lost. Netflix presented the classic example. Netflix sells video download services directly to final consumers, and it has proven difficult to collect the tax. Netflix soon became the “tag line” for the first part of New Zealand’s next tax reform, which went into effect on October 1, 2016.³⁶

³⁵ See the discussion of the Taxation Act 2003 (GST, Trans-Tasman Imputation and Miscellaneous Provisions) in: Inland Revenue, Policy Advice Division, *GST Guidelines for Recipients of Imported Services* (October 2004) available at: <https://taxpolicy.ird.govt.nz/sites/default/files/2004-other-gst-guidelines-imported-services.pdf>

³⁶ *Netflix Tax* is a reasonably good shorthand expression for what New Zealand was trying to accomplish. With a headquarters in Los Gatos, California and offices in the Netherlands, Brazil, India, Japan and South Korea (but not in New Zealand) Netflix provides services (streaming video and video on demand) directly to consumers globally. Netflix provides these services without any physical connection to most jurisdictions. STATISTA, THE STATISTICAL PORTAL indicates, that “... as of the first quarter of 2017 Netflix had over 200 million subscribers, nearly double the

The New Zealand reform occurred at nearly the same time that Fiji launched its comprehensive digital invoice regime. Fiji's goal was to secure automatic, real-time and encrypted reporting of *all taxable transactions*, B2B, and B2C. Remote service providers are not targeted (yet), but as the VAT Monitoring System (VMS) rolls out over the next years it is inevitable that remote service providers will be included. The targets will be both B2B and B2C transactions.

Fiji's record of technological innovation and implementation is steady. An initial pilot was successful.³⁷ The first phase (involving the supermarket and pharmacy sectors) was completed as planned.³⁸ Hardware companies, accounting firms, medical centers, travel agencies, and law firms are involved in the second phase, with a third phase scheduled for later this year.³⁹ Fiji's technological reform mandates that secure digital invoices must be issued for all transactions.

It is reasonably clear that invoices issued by *remote service providers* will be/ should be included in the later phases of the Fiji VMS roll-out. This is a relatively simple extension of current practice. In doing so, Fiji will be exercising control over precisely what a residence jurisdiction should control. This is not be an effort to control the *non-resident entity* that is making sales into Fiji. It is only an exercise of control over the *documents that are issued by the non-resident* when carrying out remote sales to Fiji residents.

The extension of the VMS will necessarily cover both B2B and B2C invoices/receipts issued to Fiji residents by remote suppliers. As a result, secure, real-time invoices of *all remote service contracts* will be lodged with the Fiji Revenue and Customs Service (FRCS) immediately upon consummation of the services agreement. This (alone) may be sufficient to compel significant compliance.⁴⁰

(c) *Current (and future) rules: the Netflix Tax & Digital invoices*

number from the start of 2014.” available at: <https://www.statista.com/statistics/250934/quarterly-number-of-Netflix-streaming-subscribers-worldwide/>

³⁷ *VMS/efd pilot successful: FRCS*, FIJI NEWS (December 19, 2017) available at:

<http://www.fbc.com.fj/fiji/57836/vmsefd-pilot-test-successful-frcs>

³⁸ GOVERNMENT OF FIJI GAZETTE Vol. 18, No. 62 (July 3, 2017) publishing regulation 28 of the TAX ADMINISTRATION (ELECTRONIC FISCAL DEVICE) REGULATIONS 2017 indicated that completion of the first phase was set for December 31, 2017. However, it became necessary to extend the time for completion of the first phase to February 28, 2018. *Notice of Extension and Phase 2 Group* (December 27, 2017) available at:

<https://www.frsc.org.fj/news/2017-2/notice-extension-phase-2-group/> Even as of June 2018 phase 1 remains “open” in the sense that enforcement actions to clean up the registry have not commenced. The invitation to fiscalize is encouraging absentee owners to deregister inactive companies and revise declarations of business activity.

³⁹ GOVERNMENT OF FIJI GAZETTE Vol. 18, No. 122 (December 22, 2017) publishing regulation 28 of the TAX ADMINISTRATION (ELECTRONIC FISCAL DEVICE) REGULATIONS 2017 at (a) & (b); *No extension of time limits for VMS implementation: FRCS*, FIJI NEWS (December 19, 2017) available at: <http://www.fbc.com.fj/fiji/59982/no-extension-of-timelines-for-vms-implementationfrcs>

⁴⁰ Additional enforcement leverage may come from adoption of Brazil's SPED, and payment of the VAT directly to the FRCS by final consumers may be facilitated by a VAT payment app associated with the consumer's QR code reader.

Prior to October 1, 2016 two sets of rules established the place of supply for services in New Zealand, one for services supplied by residents, the other for non-residents. Residents followed an *in-out-in* pattern;⁴¹ non-residents followed an *out-in-out-in* pattern. The resident rules are:

- [IN] If the supplier is a resident, the place of supply is New Zealand;⁴²
- [OUT] If the service is “exported” the supply is zero-rated (the place of supply is outside New Zealand);⁴³
- [IN] Exception: zero-rating is over-ridden if the supply is (likely) to be consumed in New Zealand.⁴⁴

The non-residents rules are:

- [OUT] If the service-supplier is a non-resident, the place of supply is outside New Zealand (the supply is not taxed);⁴⁵
- [IN] However, if the services are *physically performed* in New Zealand (by a person who is in New Zealand at the time the services are performed), then the place of supply is in New Zealand (and the supply is taxed);⁴⁶
- [OUT] Except, if the services *physically performed* in New Zealand are supplied to a registered taxpayer, then the place of supply is outside New Zealand;⁴⁷
- [IN] An exception-to-the-exception applies in cases where the services that are *physically performed* in New Zealand are for a registered person, and are subject to an agreement by the *supplier and the recipient*, that the supply should be treated as a New Zealand supply, then the place of supply is New Zealand.⁴⁸

New Zealand did not anticipate the arrival of the Internet. The four non-resident rules drafted (above) for service-suppliers set out a simple primary rule in §8(2) (tax determined based on the supplier’s residence) followed by three modifications that re-locate certain liabilities based on the *physical performance of the service* within New Zealand.

These rules are effective in securing most of the B2B GST. These rules take advantage of the how a VAT accommodates intermediate zero-rate transactions. If a zero-rated input adds value to a domestic output, then the value of the input is simply taxed at the next stage.

For example, assume a New Zealand manufacturer of laptop computers sells directly into the domestic market. It sells *both* (a) lap tops equipped with imported third party security software (priced at NZ\$1,050.00), and (b) laptops without imported security software (priced at NZ\$1,000.00). The value of the imported third-party security software is NZ\$50.00.

⁴¹ This is the common way of explaining taxability under the New Zealand GST. “In” meaning that the transaction is considered to have occurred “within New Zealand” and it is therefore subject to the GST. “Out” meaning that the transaction is considered to have occurred “outside of New Zealand” and therefore it is not subject to the GST.

⁴² NZ GSTA (1985) §8(2).

⁴³ NZ GSTA (1985) §11A(1) – supplier is entitled to input credit

⁴⁴ NZ GSTA (1985) §11A(2) – proxy used is location of a person (other than the formal recipient of the supply) who will actually receive the services in New Zealand.

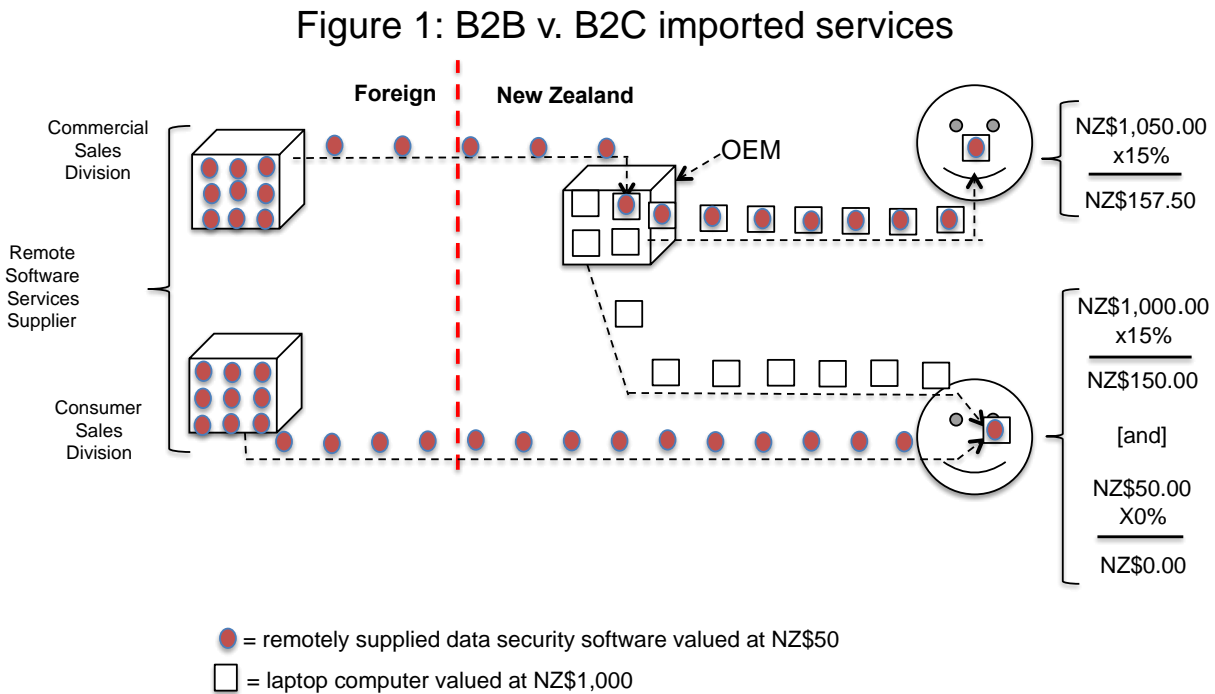
⁴⁵ NZ GSTA (1985) §8(2).

⁴⁶ NZ GSTA (1985) §8(3)(b).

⁴⁷ NZ GSTA (1985) §8(4).

⁴⁸ NZ GSTA (1985) §8(4).

If the security software can be purchased independently and installed by consumers directly, then it is possible that a consumer can avoid the GST on the value of the imported third-party security software. A consumer purchasing the fully equipped laptop would pay NZ\$157.50 in GST, but a consumer purchasing laptop and imported software separately will pay NZ\$150, if there is no mechanism for New Zealand to collect the GST from remote suppliers of services to final consumers. See figure 1 (below).



The playing field is not level. Other things being equal, consumers should prefer to purchase and install the data security software themselves, rather than purchase it through the OEM manufacturer. The price differential is 15% times the cost of the software.

In the original formulation of the New Zealand GST, the government did not seem to object to this distortion. It may have considered the revenue loss and the distortion itself to be insignificant. However, this distortion was an *opportunity* not lost on overseas software companies anxious to sell directly to New Zealand consumers (B2C). As the service economy grew, this loophole soon accounted for a significant portion of the NZ\$180 million in GST New Zealand lost each year.⁴⁹

New Zealand had been very concerned with a different, but similar (pre-Internet) loophole, and closed it at §§8(3)(b) & (4). These were instances where a non-resident service provider would use domestic agents to provide “*services [that are] physically performed in New Zealand.*” However, in the Internet era physical agents are not necessary for delivery of valuable services from non-residents, and as a result §§8(3)(b) & (4) do not solve the problem in this new

⁴⁹ See text and note at *supra* note 11.

fact pattern. Services can be delivered over the web without any physical performance in New Zealand. This is the Netflix concern.

The practical problem is clearly enforcement. Without agents of the non-resident service provider in New Zealand, without physical performance in New Zealand, and without any domestic record of the transaction (other than the personal records of the purchasing consumer), New Zealand is forced to extend its taxing authority to the overseas supplier. Doing so however, is a philosophical (tax policy) problem. It violates a foundational premise of New Zealand's residential GST. This enforcement will require an information exchange.

Netflix rules

The *Netflix* rules apply only to the subset of non-resident supplied services – *remote services* – that cannot be reached by §§8(3)(b) & (4). These are services that, at the time of performance, have no necessary connection between the physical location of the customer and the place where the service is performed.⁵⁰ For example, basic accounting services performed in the US for a New Zealand resident would be *remote services*, because basic accounting could have been just as easily performed and purchased in New Zealand.⁵¹ The *Netflix* rules are found at: §§8(3)(c), (b), (4D), 11A(1)(x) and (j).

Placing the *Netflix* rules into New Zealand's traditional *in-out* formula produces the following pattern: *in-in-out-in-out* (as follows):

- [IN] If remote services are supplied by a non-resident to a New Zealand resident then the supply is a New Zealand supply (this is a borrowed sourcing jurisdiction rule common in the EU and other source-based jurisdictions);⁵²
- [IN] In addition, the *physical performance* rules under §8(3)(b) dealing with *performance within New Zealand* still apply equally to remote services (thus, opening a second pathway sourcing remote services within New Zealand);⁵³
- [OUT] Except, if the remote services are supplied to a registered taxpayer, for use in carrying on the taxpayer's business, then the place of supply is outside New Zealand (and the services are not subject to GST);⁵⁴
- [IN] A further exception allows an *election by the supplier* (only) to treat the sale as inside New Zealand;⁵⁵
- [OUT/IN] Finally, in one last permutation, services that are *physically performed* outside of New Zealand are zero-rated [OUT], but with an exception that reverses this exclusion when *remote services* are sold to a resident of New Zealand, who is not a registered New Zealand taxpayer (final consumer) [IN].⁵⁶

Policy – level playing field

⁵⁰ NZ GSTA (1985) §2 (definition: remote services).

⁵¹ New Zealand is concerned (to continue the example) that accountants in the US are under-cutting accountants in New Zealand by the amount of the GST (15%). These rules are designed to level the playing field.

⁵² NZ GSTA (1985) §8(3)(c).

⁵³ NZ GSTA (1985) §8(3)(b).

⁵⁴ NZ GSTA (1985) §8(4D).

⁵⁵ NZ GSTA (1985) §11A(1)(x)

⁵⁶ NZ GSTA (1985) §11A(1)(j)

In its *Special Report* on cross-border supplies of remote services the Policy and Strategy group of Inland Revenue stresses that the guiding light in the entire reform is an assurance that *playing field is being leveled*.⁵⁷ The first two examples in the *Special Report* make this clear. In the first, the main rule is applied to equate taxable domestic sales of services to consumers with non-resident sales of the same remote services. In the second, the example highlights the removal of incentives that had encouraged domestic service providers to set up an overseas to sell back into the New Zealand market. The examples highlight:

- (a) *the main rule of §8(3)(c)*, indicating that non-resident businesses that directly provided remote supplies of services to New Zealand consumers are taxable on those sales at 15%, because the place of supply for these services is moved to the *buyer's place of residence*, and then
- (b) *the distortion limiting rule of §11A(1)(j)*, indicating that domestic businesses will no longer get a tax advantage out of setting up in a foreign location to “sell-back” services to New Zealand consumers.

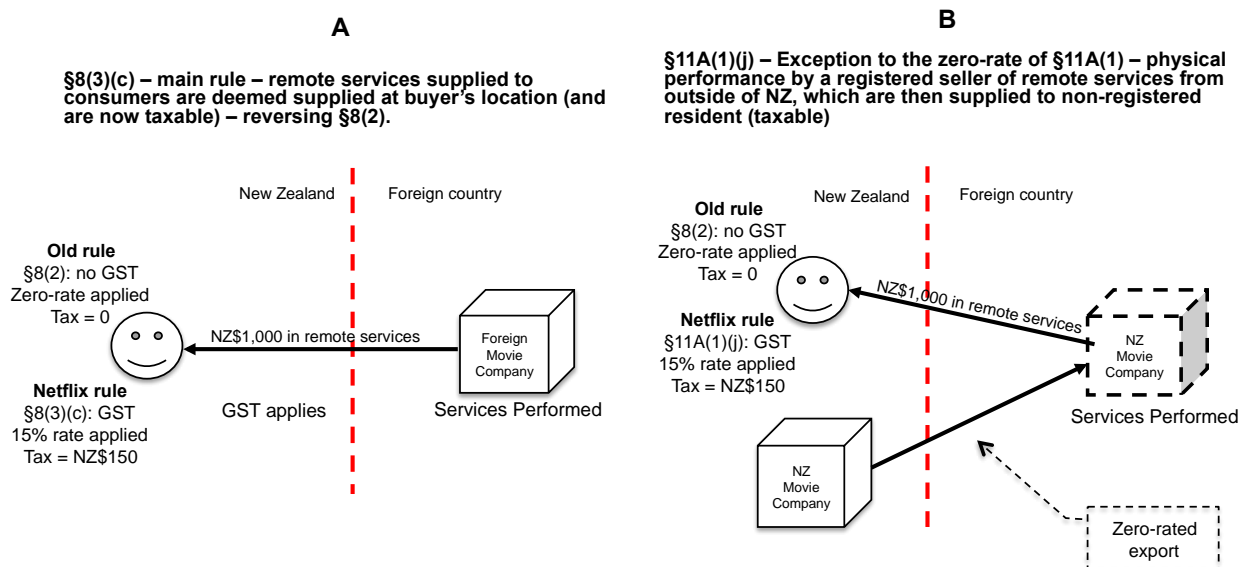
Both examples involve a movie company. They appear to be thinly veiled references to the Netflix, Inc. business model, which was producing visible revenue losses. The first example demonstrates how (new) §8(3)(c) directly reverses the application of (old) §8(2) to *remotely supplied services*.

The second example shows how a domestic supplier might avoid GST by moving the performance element of providing a service outside of New Zealand, where it would become a zero-rated *remote service*. After October 1, 2016 however, (new) §11A(1)(j) eliminated this potential manipulation by removing *remote services that are provided to New Zealand consumers* from (old) §11A(1)'s zero-rating provision.

These examples are illustrated in Figure 2 (below):

⁵⁷ New Zealand Inland Revenue, *Policy and Strategy, Special Report: GST on Cross-border Supplies of Remote Services* (May, 2016) at 8, available at: <https://taxpolicy.ird.govt.nz/sites/default/files/2016-sr-gst-cross-border-supplies.pdf>

Figure 2: Level Playing Field



Based on well-established fraud patterns, there are three obvious revenue leakage “opportunities” in Figure 2 that will be both difficult to detect, and nearly impossible to recover the lost GST from. First, if the foreign movie company (in part A) has less than NZ\$60,000 in annual sales, the sale to the consumer is taxable, but the remote seller is not obliged to register, collect, and remit the GST. The new rules have no mechanism to collect the GST in this instance. There is a NZ\$60,000 registration threshold, but in conformity with the New Zealand vision of devising a level GST playing field – resident and non-resident thresholds match.⁵⁸

Each of these four discussions of “leakage opportunities” can be replicated for part B of Figure 2. In these permutations the manipulation is controlled by the New Zealand movie company, but simply occurs “off shore” after the zero-rated export. It does appear however that the greatest threat to the New Zealand fics comes from type-A fact patterns.

Secondly, the foreign movie company might adopt a familiar GST avoidance strategy of selling through to New Zealand consumers by using a chain of smaller intermediaries, each of which would be structured to never exceed the NZ\$60,000 threshold. Preventing this avoidance technique is dependent on the tax authority having reasonably comprehensive data of transaction profile of the entire chain structure.⁵⁹

⁵⁸ NZ GSTA (1985) §51(1)(a) the NZ\$60,000 registration threshold applies to both residents and non-resident suppliers, subject to a provision in §51(1C) that will allow non-resident suppliers of remote services subject to §8(3)(c) to use a “fair and reasonable method of converting foreign currency.”

⁵⁹ For example, consider *Customs and Excise Commissioners v. Jane Montgomery (Hair Stylists) Ltd.*, [1994] STC 256 (Court of Exchequer – Scotland) involving a single hair styling business that attempted to avoid charging VAT to customers by turning employees into independent contractors who would operate under the VAT threshold. The avoidance structure was collapsed back into a single enterprise VAT-registered enterprise on audit. *Gold Star Publications, Ltd. v. HMRC*, [1992] 3CMLR1 (Q.B. 1992) involving a publishing house of books and magazines which used unregistered intermediaries to avoid the necessity of collecting VAT on sales to final consumers. The

Thirdly, fraudsters could follow the previous structure, but design the chain to collapse into missing traders. These entities would be hard to identify while making remote services sales into New Zealand, and nearly impossible to locate after the collapse (even by authorities in the foreign jurisdiction). This kind of collapsing fraud chain structure is a familiar aspect of most EU Missing Trader Intra-Community (MTIC) fraud investigation. These structures can be entirely virtual, and set up to appear to be functioning enterprises in multiple jurisdictions, but in fact only reside on a fraudster's laptop.⁶⁰

It is difficult to imagine how New Zealand can raise an effective enforcement effort against these frauds without the most basic data about the remote services transactions it seeks to tax. At a minimum New Zealand needs to have real-time information about:

- (1) who is making a remote sale, and to whom;
- (2) what is being sold, and what are the separate and aggregate volumes of each sale;
- (3) when were the sales made, the money transferred, and the services received; and
- (4) how are various sellers related to one another?

These concerns are separate and apart from the need to have enforcement options that work effectively *remotely* (from New Zealand), because in these situations, New Zealand is as *remote* from the fraudsters, as the fraudsters are from New Zealand. Aside from voluntary compliance, what else can New Zealand do to collect missing GST? How can New Zealand punish repetitive bad-actors from exploiting its market?

The answers are in Fiji.

Fiji's Digital Invoice

Three things make the New Zealand Netflix rules an uncomfortable fit. *First*, the rules are a selective extra-territorial extension of New Zealand's taxing jurisdiction to a sub-set of non-resident suppliers. It clashes fundamentally with the underlying principles of a residence-based tax. It does not have the simplicity of design one would expect to find on a *level playing field*. It does not treat all non-resident suppliers equally, nor does not treat all resident and non-resident suppliers of the same services equally.

same resolution in this case as with *Jane Montgomery*, with the added complication of determining the commercial and consumer pricing due to the use of discounts by Gold Star which effectively removed the VAT from the products before he sale to intermediaries.

⁶⁰ See for example the collapsing entities set out in the Deutsche Bank MTIC frauds constructed around sales of CO2 permits at Figure 5 in Richard T. Ainsworth, *VAT Fraud Mutation, Part 3: "Pull" Missing Trader Fraud and Deutsche Bank*, 81 TAX NOTES INTERNATIONAL 1139, 1147 (March 28, 2016) where the following entities were constructed to collapse as buffers or missing traders: Evatrading, GmbH; Amaan Enterprise, GmbH; SabsEuro Trading, GmbH; EverStar Handels, GmbH; and I.I. First Euro Trading, GmbH (which were missing traders that filed no VAT returns) as well as iTrading, GmbH; Hanna, GmbH; Lösungen 360, GmbH; and Gluke, Ltd. (which were German and UK buffers that filed proforma returns with no or minimal revenue). For a description by a fraudster of 300 virtual companies created on his laptop to buy and sell products with false invoices throughout the EU see: Ashley Seager & Ian Cobain, *Carousel Fraud: Bogus Deals Keep Customs in a Spin: Smart Criminals stay ahead of Investigators, Russian Mafia, and IRA linked to Swindles*, THE GUARDIAN (May 9, 2006) available at: <http://www.guardian.co.uk/uk/2006/may/09/ukcrime.ashleyseager>

Secondly, full enforcement of the Netflix Tax will require a considerable amount of foreign cooperation through information exchanges. There is nothing to suggest that many foreign jurisdictions would be anxious to cooperate with New Zealand as there is “nothing in it for them” other than neighborly cooperation. It will be difficult even for a willing trading partner to pressure resident businesses into compliance with foreign tax rules. Most likely, the foreign governments NZ will need to approach are China, the US, and Hong Kong.⁶¹

Thirdly, the necessary enforcement data to even begin a foreign enforcement action on B2C services transactions is simply not available in New Zealand, and the Netflix Tax does nothing to gather it. How will New Zealand know that a consumer purchased a taxable service from a remote supplier? If it has even a hint of a purchase, then New Zealand may be able to follow a digital credit card trail to a foreign financial clearing house, and may (with assistance) be able to connect a New Zealand payment with a remote purchase, but to follow the digital trail deeper into foreign commercial transactions will certainly be time consuming.

The trajectory of the Fiji reform suggests that, if (more likely “when”) Fiji starts to look at the same non-resident suppliers of remote services problem, that *Fiji would do things differently*. Rather than legislating that certain foreign suppliers must be Fiji-VAT taxpayers, requiring them to register, file returns, collect VAT, and remit funds to FRCS, Fiji would simply extend its EFD Regulation to all non-resident suppliers (including suppliers of remote services).⁶²

The playing field in Fiji would now be level.

This is a simple (relatively no-cost) extension of the current system. Fiji has a free app that generates the required *fiscal invoice* from any point of sale (POS) system, or invoice-generating enterprise resource planning (ERP) system. If Fiji was considering a solution to their Netflix Tax problem it would most likely just require that non-resident suppliers (like all resident suppliers) issue a *fiscal invoice* when engaged in transactions with Fiji residents. It would not matter if the buyers were Fiji businesses or Fiji final consumers.

From a high level, Fiji envisions a VAT system which operates through a business-government digital partnership. The partnership is “... an electronic system [designed to] transmit[s], receive[s], record[s], analyze[s], format[s], store[s], and monitor[s] fiscal data.”⁶³ The partnership is comprised of (a) the “*Authority’s system*,” the TaxCore, and (b) the mandatory

⁶¹ For example, in a Report by the Comptroller and Auditor General, HM Revenue and Customs, *Investigation into overseas sellers failing to charge VAT on online sales* (April 19, 2017) at ¶3.15 it determined that:

In 2016, most (61%) of the VAT registrations by non-EU sellers for online trade were from China, 20% were from the USA, 5% from Hong Kong, and 14% from other countries.

Because the Internet is ubiquitous, most likely these are the same countries that New Zealand would need to have excellent information exchange agreements with to properly enforce the Netflix Tax. The HMRC report is available at: <https://www.nao.org.uk/report/investigation-into-overseas-sellers-failing-to-charge-vat-on-online-sales/>

⁶² GOVERNMENT OF FIJI GAZETTE Vol. 18, No. 62 (July 3, 2017) publishing regulation 28 of the TAX ADMINISTRATION (ELECTRONIC FISCAL DEVICE) REGULATIONS 2017 (hereinafter EFD REGULATION) available at: [http://www.fiji.gov.fj/getattachment/8f570d67-471a-4a3b-80a9-2cd105492ffe/LN-37---Tax-Administration-\(Electronic-Fiscal-Devi.aspx](http://www.fiji.gov.fj/getattachment/8f570d67-471a-4a3b-80a9-2cd105492ffe/LN-37---Tax-Administration-(Electronic-Fiscal-Devi.aspx) .

⁶³ EFD REGULATION, at §4(1) at 77.

electronic fiscal device (EFD), which is the system “... used by taxpayers in operating their business.”⁶⁴

New Zealand needs a similar digital partnership.

From the taxpayer’s perspective, the central element of this partnership is the electronic fiscal device (EFD). An EFD is not a physical product (that is, it is not a tangible unit, a black box or other physical *device*). An *electronic fiscal device* is a *system* comprised of two parts either of which or both may be entirely software-based:

- (a) a POS system, or more generally an Accredited Invoice System (AIS)⁶⁵ and
- (b) a Sales Data Controller (SDC) with a Secure Element (SE).

The POS/AIS⁶⁶ in the EFD must be *accredited*.⁶⁷ Fiji’s *Electronic Fiscal Device* regulation provides POS accreditation guidelines.⁶⁸ The basic requirements to be an *accredited* POS can be simply stated:

An *accredited POS* needs to be able to connect with an *accredited SDC* and be able to issue a *fiscal invoice*.

The EFD regulation identifies two avenues for producing a *fiscal receipt* with an *accredited POS*, one [a hardware or software solution] uses an *External SDC* (E-SDC). This will create a non-internet-based, or *semi-connected* relationship.⁶⁹ The other [a software *only* solution] uses a *Virtual SDC* (V-SDC). This will create an internet-*connected* relationship.⁷⁰ Based entirely on how the taxpayer’s business is set up, and how it achieves connectivity with the outside world, a choice is made between: (POS + E-SDC) and (POS + V-SDC) compliance with the EFD regulation.

In the case of the *Netflix Tax* fact pattern, which involves remote cross-border sales of services over the Internet, the logical choice would be for the service provider to use (POS + V-SDC). Some businesses might secure an E-SDC as a back-up (in case the internet goes down, or

⁶⁴ EFD REGULATION, at 78.

⁶⁵ An Accredited Invoice System (AIS) is an umbrella term covering devices and systems capable of producing receipts (normally issued in B2C transactions) and invoices (normally issued in B2B transactions). A point-of-sale (POS) system is one specific application on an AIS. POS and AIS are used interchangeably in this text.

⁶⁶ The EFD REGULATION, at §2(1) at 76 define a POS as follows:

“POS” means a point of sale invoicing device or software which is an electronic device or software application that is—

- (a) used by a business for management control in the areas of sales analysis and stock control; and
- (b) a component of the business’s EFD—
 - (i) into which a cashier enters the transaction data for each transaction made by the business; and
 - (ii) from which a fiscal invoice for the transaction is issued;

⁶⁷ While all POS systems perform the same basic functions of a traditional cash register (issuing receipts) modern POS systems are much more complicated than a basic electronic cash register (ECR). It will include a computer, monitor, cash drawer, receipt printer, customer display and a bar code scanner along with a debit/credit card reader.

⁶⁸ EFD REGULATION, at §20(a) & provided in *Schedule 1* at 90-96.

⁶⁹ EFD REGULATION, at *Schedule 1(3.1)* at 92.

⁷⁰ EFD REGULATION, *Schedule 1(3.2)* at 92-3.

the supplier decides to make other types of sales. Regardless of the choice, the EFD must produce the specified compliance outcomes.

The entire Fiji system is built on top of Public Key Infrastructure (PKI) using a certificate authority. The application of PKI addresses the following concerns:

- Taxpayer and Tax Authority mutual authentication;
- Non-repudiation of digital signatures; and
- Data transport security with invoice integrity.

The Fiji Revenue and Customs Services (FRCS) acts as a registration authority, verifying identity information before digital certificates are issued to Taxpayers.

The goal of the VMS is the creation of fully compliant *fiscal invoices*. There are two data-intensive parts of a fiscal invoice: (1) some of the necessary data is included in the *invoice request* which is sent by an accredited POS to the V-SDC, and (2) the rest of the data is included in the *invoice response* which is generated by the V-SDC in reply.⁷¹ Both the *request*,⁷² and the *response*⁷³ must include specific data points.⁷⁴

Figure 3 (below) sketches the *fiscal invoice request* process used in Fiji. In this figure the Fiji system has been placed into a New Zealand Netflix Tax pattern. The diagram assumes that the Foreign Music Company has been required to secure an *accredited POS* (perhaps a government-provided free app) for all of its sales into Fiji. It assumes that there is no difficulty receiving transaction data from a Fiji consumer who has offered to purchase remote services from the Foreign Music Company (most likely by going to a web site where the Foreign Music Company advertises its music for download). The figure then sketches the POS processes that occur when the accredited POS completes the request from the Tax Core's secure element (the V-SDC) to return a compliant *fiscal invoice*.

⁷¹ The same exchanges could be handled by an E-SDC, but the assumption is that for remote cross-border services transactions which require internet connectivity, the SDC that will be used will be virtual (V-SDC) which is housed within the Tax Core (a server physically residing within the FRCS).

⁷² The *invoice request* (by the POS) must include:

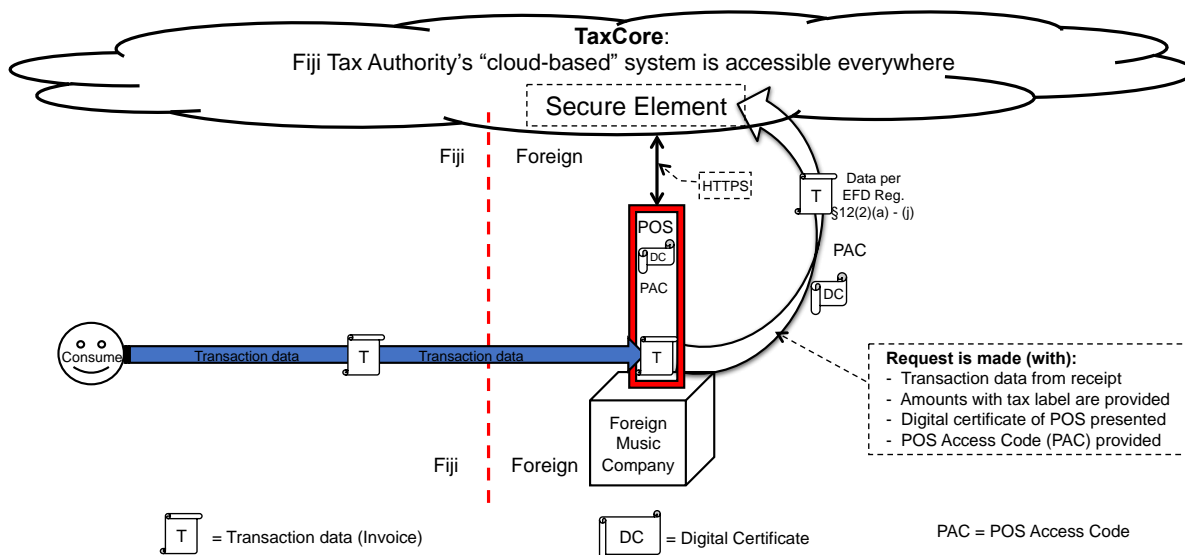
- (a) the type of receipt;
- (b) the type of transaction;
- (c) the method of payment;
- (d) the name or unique identification of the cashier;
- (e) the name or unit code of each good or service supplied;
- (f) the unit price and quantity of each good or service supplied;
- (g) the total price of the goods or services supplied;
- (h) the taxes that are a part of the invoice and the tax rates applied;
- (i) the total amount payable by the customer;
- (j) if the customer is a taxpayer, the customer's TIN.

⁷³ The *invoice response* (by the SDC) must include:

- (k) the name and TIN of the business, and the identification of the business premises where the transaction occurred;
- (l) the date and time the receipt is issued;
- (m) the sequential serial number of the receipt;
- (n) the serial number of the digital certificate of the business's EFD;
- (o) the digital signature and internal data⁷³ of the EFD.

⁷⁴ EFD REGULATION, §12(2) at 81-82.

Figure 3: Request for Fiscal Invoice [from V-SDC]



The V-SDC (virtual sales data controller) is the second part of the EFD (electronic fiscal device). The V-SDC resides on servers at FRCS. The Tax Authority must be sure that all V-SDC operations are secure, that the data cannot be compromised or manipulated. The collective expression used to describe these protected functions is the *secure element* (SE). There are five-steps in a complete fiscal invoice generation process:

- (1) The accredited POS/AIS will generate the contents of an invoice/receipt with the *transaction data*, and prepare to make a request for a fiscal invoice.
- (2) The *transaction data* is then sent to the V-SDC, where the SDC will verify format, tax labels, current date, time, and PIN code/password for the digital certificate.⁷⁵
- (3) The data is then sent through the SE for fiscalization (*at this moment the transactional data becomes fiscal data*).⁷⁶
- (4) The SE will verify that all numbers are positive, it will re-calculate the internal data, encrypt the data with the *Authority's* public key, and sign the receipt.
- (5) The final step is for the SDC to transmit a *fiscal invoice* back to the POS/AIS (which permanently preserves the transactional and fiscal data on site), and simultaneously transmits the *fiscal data* to the *Authority*.

⁷⁵ EFD REGULATION, §11 at 81. The digital certificate does the following:

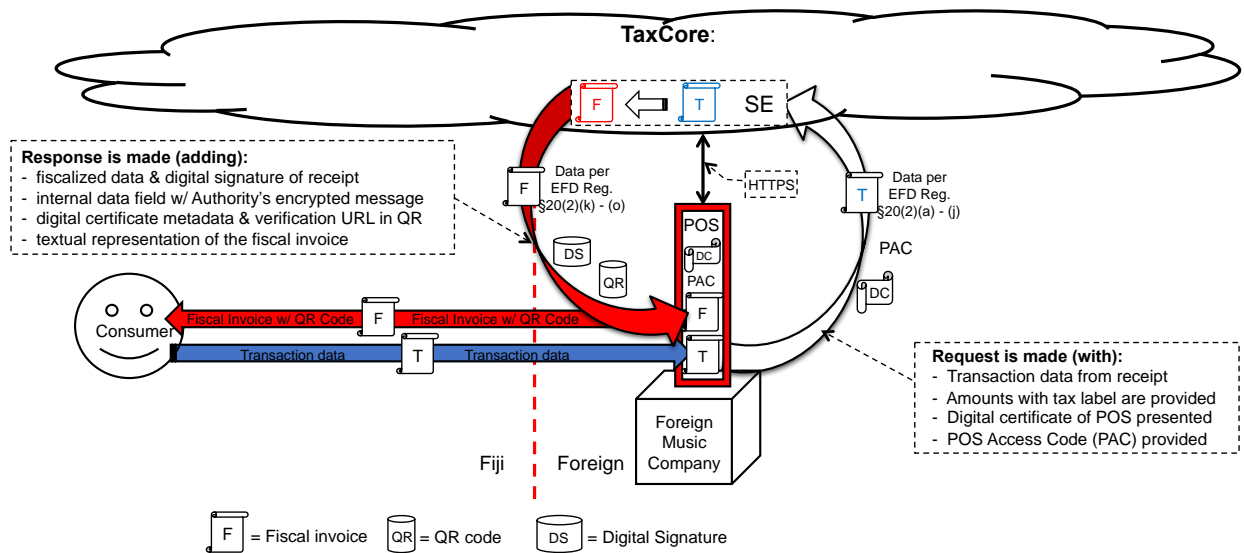
- (a) reproduces the taxpayer's digital signature for recording on each fiscal invoice issued by the taxpayer to a customer;
- (b) reproduces the protected password or PIN code of the taxpayer and securely delivers the password or PIN Code to the Authority's system to enable the EFD to link to the Authority's system and securely transmit the fiscal data to the Authority's system; and
- (c) records the date on which the data is transmitted to the Authority's system.

⁷⁶ EFD REGULATION, §5(d) at 78 (emphasis added):

SDCs that receive *transaction data* from POSes, **instantly** format that data into *fiscal data* and *fiscal invoices*, transmit the fiscal data to the Authority's system and transmit the fiscal invoices to POSes. Indicating that the transformation of transaction data to fiscal data, and fiscal invoices is **instantly** performed.

The final customer (an online purchaser of remote services) will not notice a time delay in the issuance of a fiscal invoice. The five-step process needed to produce a fiscal invoice will take less than three milliseconds to complete. The only visible difference between a traditional transaction and a fiscal invoice transaction is that the receipt (invoice) will have a scannable QR code. The QR code will allow the customer to verify the accuracy of the data on the receipt (invoice) with records of the transaction retained on the *Authority's system*. Figure 4 (below) completes the *request* made in Figure 3 by providing the *response* of the Tax Core.

Figure 4: Response completing Fiscal Invoice [w/ QR verification]



At this point, both the Tax Core located in the FRCS, and the POS system in the Foreign Music Company will have a complete digital record of all the Fiji transaction engaged in by the Foreign Music Company. The final consumer(s) would also have complete access to their own transaction records, and could verify any transaction by scanning the QR code on the invoice (receipt). At current rates (9%) a purchase of remote services for FJ\$1,000 would attract a VAT of FJ\$90, or in the case of New Zealand, the current GST rate (15%) on a purchase of NZ\$1,000 would attract GST of NZ\$150.

Currently, Fiji does not collect the FJ\$90, but New Zealand, under §8(3)(c) of the *Netflix Tax* would expect the Foreign Music Company to report and remit NZ\$150, provided it had exceeded the NZ\$60,000 gross sales threshold. A *remote audit* of the Foreign Music Company would be possible under the extension of Fiji's VMS being discussed here, because all the necessary data would be immediately available in the FRCS's Tax Core, but is currently unavailable in New Zealand. But if it were, then both the specific NZ\$1,000 transaction and the aggregate sales figures (whether they are higher or lower than NZ\$60,000) could easily be determined remotely.

However, we should take a step back for a moment and consider the options that Fiji has in collecting its FJ\$90, given that it has considerable experience working with a VMS data, and

given that it has not already adopted a complex Netflix Tax statutory regime. Working from a clean slate, Fiji (or any other jurisdiction) could:

- (a) take the New Zealand approach and extend its taxing jurisdiction extra-territorially and *directly impose* on the Foreign Music Company an obligation to register, collect and remit the Fiji VAT, but supplement the New Zealand statutory remedy with an extended VMS that pulled in any remote transaction made with a Fiji business or consumer; or
- (b) impose a *use tax* obligation on the Fiji consumer(s) who made the purchase(s), in a manner similar to the *use tax* in the US, and do this in tandem with an extension of the VMS, but to do this effectively the *fiscal invoice* would have to incorporate identifying information about the customer as part of the initial transaction data for the purchase; or
- (c) be creative, extend the VMS to remote sellers, and then use the QR code in a new way, by allowing the customer to shift tax reporting, collecting and remission obligations from the customer, as in (b), to the seller, as in (a), by giving the customer the ability to compel this shift by simply by scanning the QR code on the receipt, which would both verify the accuracy of the receipt and notify the seller (and the tax authority) that all tax reporting obligations was shifted to it; or
- (d) adopt Brazilian SPED-like rules and deny legal enforceability to any foreign contract for purchases that was not memorialized in a digital receipt/ invoice without a valid (and buyer verified) QR code, and couple that rule with the option in (c), which would shift VAT reporting, collection and remission obligations to the seller upon the scanning of the QR code.

While (a) is the New Zealand approach, and has complex statutory rules, (b) may not be workable as it raises privacy concerns if it was felt that the government was collecting a database of all consumer purchases. (c) and (d) however basically extend the VMS to cross-border transactions with incentives to get the consumer to “close the digital consumption loop” without disclosing personal information.

By getting consumers to verify purchases by scanning QR codes, the VMS system would become a strong barrier to retail fraud. If consumers could be encouraged to demand *fiscal invoices* from remote sellers, and they would then confirm the accuracy of the invoice by scanning the QR code, retailers would be on guard to issue proper invoices and the tax data would be immediately recorded in the Tax Core. This would be an especially effective campaign when the retailers (on the internet) were companies that the consumers do not know. Verifying the transaction accuracy, and removing a tax filing obligation from consumers would seem to be effective incentives.

Option (d) goes one step further than (c) by denying enforceability to sales agreements that are not preserved in a valid *fiscal invoice*. The *fiscal invoice* would become a consumer bulwark against internet scammers, because a scammer is highly unlikely to register with the tax authority and install a certified POS that would communicate automatically, in real-time, transaction-by transaction with the tax authority. It is very likely that credit card processing companies would make the processing of a credit transaction contingent on (a) the buyer issuing a valid *fiscal invoice* and (b) on the consumer validating the invoice by scanning the QR code.

CONCLUSION

VAT/GST avoidance schemes involving remote sales of services have been growing in importance for fifty-years or more according to the IMF. It has become a serious threat to revenue in recent years with the growth of the Internet as a place to buy and sell almost anything. Technology has been the tax avoidance accelerant.

Statutory draftsmen (New Zealand) have looked at this problem directly with what has been called the *Netflix Tax*. Technologists (Fiji) have been struggling with similar problems and have developed systems that would seem to address remote sales of services more effectively than these traditional approaches. It would seem that fighting technology with technology has some distinct advantages over a traditional (written) statute and regulation approach, and this paper begins to show where these advantages reside.

The most significant take-away from this introductory analysis is that we need to become more comfortable with the fact that the preferred platform for technology-based regulation is the computer code itself. *Code is law*, was Larry Lessig's formulation in 2000.

Our choice is not between "regulation" and "no regulation." The code regulates. It implements values, or not. It enables freedoms, or disables them. It protects privacy, or promotes monitoring. People choose how the code does these things. People write the code. Thus, the choice is not whether people will decide how cyberspace regulates. People – coders – will. The only choice is whether we collectively will have a role in their choice – and thus in determining how these values regulate – or whether collectively we will allow the coders to select our values for us.⁷⁷

Larry was not thinking about taxation at the time he wrote the passage above as a Professor at Harvard Law School with the Berkman Center for Internet and Society, and neither were we across the hall at the International Tax Program, but today we can certainly add tax to his list of opposed outcomes. The technology behind tax systems (the code) will either enforce tax collection or facilitate avoidance.

The contrast analyzed here between a technological tax reform in Fiji and a traditional (statute and regulation) reform in New Zealand is not complete. There are still a number of things to consider in subsequent papers, including:

- The general impossibility of *remote enforcement* of compliance with the Netflix Tax (New Zealand), and the use of *proof of audit* functionality to get remote enforcement (Fiji);
- Difficulty enforcing non-resident *threshold rules* (New Zealand), and the use of *digital counters* to accomplish this effort remotely (Fiji);
- Problems arising from potential *double taxation* of remotely supplied services (New Zealand), and the use of the VMS's *internal blockchain* (mini blockchain) functionality to solve this problem smoothly (Fiji);
- Imputing *digital marketplace liability*, and the similar issues with sales agents (New Zealand), and use of the VMS to transparently manage this structure remotely (Fiji);

⁷⁷ Lawrence Lessig, *Code Is Law – On Liberty and Cyberspace*, HARVARD MAGAZINE (January-February 2000)

- Problems and penalties associated with *false information* sent to the tax authority (New Zealand), and the ability of the VMS's *fiscal invoice and QR code verification* mechanism to detect (and block) false data in real-time (Fiji);
- The *complexity of dual* (business/consumer) *status taxpayers* (New Zealand), and the simplification offered by *granular digital records* in the VMS (Fiji).

It is reasonably clear with this brief introduction that New Zealand would do well to consider adopting Fiji's VAT Monitoring system to make it's *Netflix Tax* take hold, be transparent, and remotely enforceable.