

Reform of indirect taxation and VA-based employers' contributions: New Caledonia on its way to a social VAT?

Gaël Lagadec and Catherine Ris

The Government of New Caledonia is considering the adoption of a value added-based employers' contribution—a so-called social value-added tax (SVAT)—to pay for its social policy initiatives. This article examines the implications for business costs, inflation, imports, the purchasing power of wage earners, and taxes.

Gaël Lagadec and Catherine Ris are in the Laboratory for Legal and Economic Research, University of New Caledonia, Noumea.

The Government of New Caledonia, which was elected in May 2009, has decided to make changes to social policy, including increasing basic incomes, regulating prices of essential products, regulating bank charges, and providing assistance to underprivileged parts of the population as well as to the middle class (housing support and pensions). Economic policy has also been revamped to improve competitiveness. This competition policy is complemented with a higher purchasing power policy, since it implies reductions in firms' production costs to offset the effects of wage increases. The

competition policy is based partially on the reform of the New Caledonian tax system, which should be implemented in the second part of the government's 2009–14 term (following an aborted attempt to reform the tax regime in 2007).

In order to ease the implementation of the new social policy, the president has announced that he is studying the possibility of a value-added (VA) employers' tax contribution to help pay for the social policy initiatives—implying a transfer of the tax base from wages to value added. The government is also planning tax



reform that could result in either a value-added tax (VAT) or a simplified customs tax. Whatever the reform, a VA-based employers' contribution is an innovative measure—essentially a social VAT (as opposed to a 'fiscal' VAT).

What is at stake in these reforms is avoiding a social stalemate such as Guadeloupe (a French overseas department) had to undergo in 2009, with the unions thinking a wage increase was vital and employers considering it unsustainable (Lagadec 2009).

This article presents the concept of a social VAT and shows how adopting it in New Caledonia (whether together with a traditional VAT or not) could allow the government to gain manoeuvring room for a boost in purchasing power without undermining firms' competitiveness.

Economic overview of New Caledonia

Key economic indicators

Together with French Polynesia and Wallis and Futuna, New Caledonia is one of three French Pacific territories. It enjoys a unique constitutional arrangement, laid out in the Accord de Nouméa and signed in 1998, which sets out a process for France to hand over responsibility for sectors other than defence, foreign policy, justice, public order, and money; and with the possibility of a referendum on independence during the 2014–18 period.

New Caledonia has one of the largest economies in the Pacific islands region, with a relatively high GDP per capita (comparable with New Zealand; Table 1); however, there are significant disparities in income distribution (both geographically and ethnically). Although New Caledonia has significant nickel resources, which account for 90 per cent of its export earnings, it is still reliant on financial transfers from

Table 1 **Main economic indicators of New Caledonia, 2009**

| | New Caledonia |
|-------------------------------------|-------------------|
| Population | 245,580 |
| Human Development Index | 0.878 |
| Gini index (2004) | 50 |
| Per capita GDP (€) | 24,900 |
| Adjusted annual GDP growth rate (%) | 1.8 ¹ |
| Inflation (%) | 3.4 |
| Unemployment rate (2004) (%) | 16.3 |
| Exports/imports cover rate (%) | 36.0 ² |
| Transfers from state (€ billion) | 1.14 |
| Minimum guaranteed wage (€/month) | 1,042.5 |

Source: Lagadec, G. and Ris, C., 2010. *La conjoncture économique dans la région Asie-Pacifique après la crise des subprime*, MPRA Paper no. 23304.



France amounting to approximately 25 per cent of GDP.

New Caledonia is unique in being a South Pacific economy based predominately on mining,³ and it has some quite sophisticated domestic industries and services to support the mining sector. Despite the substantial fall in world nickel prices in 2008–09, with several large mining infrastructure projects in the pipeline, the nickel industry will become even more important to New Caledonia's economy—significantly increasing its contribution to GDP and generating further employment opportunities in the longer term. Nickel's price volatility, however, means there is an obvious need to reduce economic uncertainty through economic diversification.

New Caledonia's economic growth over the past 10 years has been accompanied by a decline in the importance of the public sector (Sudrie 2009). Further, the growth of government revenue has reduced the dependence of public finances on metropolitan transfers and has permitted financing of public spending without increasing public debt (which remains low). Nevertheless, public finances have some structural weakness: revenue is linked partly to the fluctuations in the nickel price, whereas the recent increase in public spending is mostly structural (CEROM 2008).

The main indicators of foreign trade

New Caledonia's trade openness ratio⁴ increased between 1998 (18 per cent) and 2009 (41 per cent), but it remains low compared with that prevailing in other small island states. Indeed, according to CEROM (2008), only 13 per cent of the small island states have a trade openness ratio as low as New Caledonia's.

New Caledonia applies trade barriers to protect local industry and employment⁵ (although a preferential tariff regime for

the entry of EU-origin products remains in place). But the protection given to domestic industry does not provide a full explanation of the low openness ratio (Figure 1 shows that the protectionist policy has not succeeded in curbing the volume of imports). The New Caledonian openness ratio might be biased downwards because the protectionist policy⁶ and small market size have had the effect of driving up domestic prices compared with import prices—with the denominator of this ratio being overvalued by 72 per cent at world prices⁷ (Brard 2007).

New Caledonia consistently runs a trade deficit (Figure 1). The propensity to export is limited, with the exception of nickel. New Caledonian exports are modest because of the territory's overwhelming reliance on mineral exports and because local production costs are high. These similarities with the other main French territory in the Pacific (French Polynesia) have been underlined by Poirine (2010).

Social inequalities

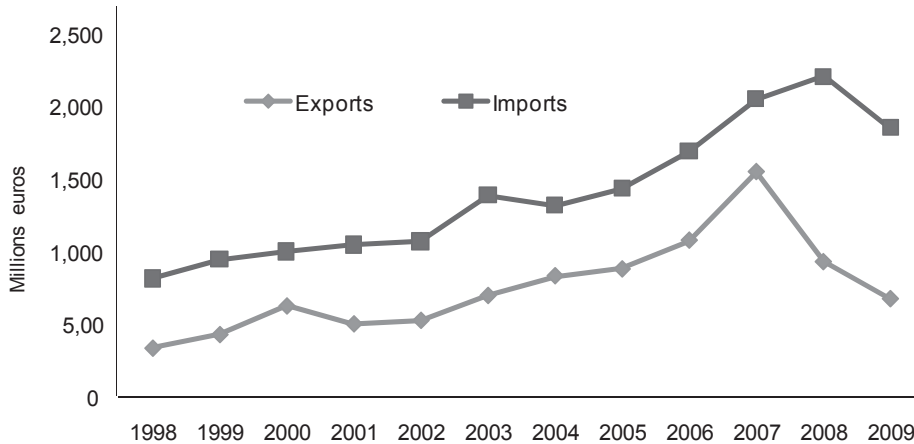
New Caledonian society has a high level of inequality. The wealthiest households (approximately 20 per cent of the population, or 15,000 tax households) receive 55 per cent of all the revenue declared to the tax administration, compared with 40 per cent in Metropolitan France, 41 per cent in Australia, and 43 per cent in New Zealand (CEROM 2008:45).

In 2006, the Gini index calculated for New Caledonia was 50. France has a Gini index of 33; for Australia and New Zealand, the Gini index is 35.⁸ This significant disparity in wealth distribution is made more painful for some by the high cost of living owing to small market size and heavy market protection (favouring local and European goods).

In 2006, two-thirds of private-sector employment was paid less than CFP200,000⁹



Figure 1 Evolution of New Caledonia's foreign trade



Source: New Caledonia Institute of Statistics and Economic Studies: <http://www.isee.nc/seriesstat/seriesstats.html>; New Caledonia Institute of Statistics and Economic Studies (ISEE), 2010. *Tableaux de l'économie calédonienne*, Edition abrégée 2009, New Caledonia Institute of Statistics and Economic Studies, Noumea:96

(€1,680). The share of salaried workers in the private sector who are paid the minimum wage or less is 37 per cent in New Caledonia (New Caledonian Public Health Insurance and Family Benefit Fund: www.cafat.nc) compared with 14 per cent in Metropolitan France. The minimum wage in New Caledonia (CFP132,000, €1,109 in January 2010) equals 70 per cent of the metropolitan minimum guaranteed salary, while salaried agricultural workers are paid the agricultural minimum guaranteed salary, which corresponds legally to 85 per cent of the minimum guaranteed salary—with prices in New Caledonia being considerably higher than in European countries (CEROM 2008:59).

Moreover, the high inflation rate in recent years was even harsher for the poorest households as increases in food prices were much higher than for other goods. The strong inflationary pressure encouraged the government to establish a freeze on prices and sales margins for

imported goods, local products and some services. A limited number of products and services are still regulated in New Caledonia; this is the case for essential or basic necessity products in particular. Inequalities in New Caledonia correspond acutely with the lack of purchasing power for those on the lowest salaries. This justifies the recent policy of wage increases.

The Government of New Caledonia has a variety of mechanisms at its disposal to regulate the economy in terms of economic legislation and taxation, while monetary policy is the responsibility of the French State. In this context, reforms to redistribute income and increase purchasing power appear to be a prerequisite for stronger and sustained growth.



An outline of New Caledonia's tax system

Relative parts of direct and indirect taxation. New Caledonia's budget is first and foremost a budget of income redistribution between the 'collectivities', among which the three provinces come first. This 'rebalancing' was planned by the *Accord de Nouméa* and the 1999 organic law, which confirmed New Caledonia's institutional specificity. In 2007, New Caledonia received total revenue of CFP152 billion, CFP141 billion of which came from taxation. There are two main categories of revenue: that pertaining to the base of redistribution to collectivities (territory, provinces, and municipalities), including direct and indirect taxes; and that directly allocated by New Caledonia to some establishments and various bodies (notably the New Caledonian Public Health Insurance and Family Benefit Fund, or CAFAT, which manages social security).

From 2002 to 2007, tax revenue increased from CFP74 billion to CFP141 billion (an 89 per cent increase). Since 2007, tax revenue has plateaued as a result of the economic crisis and the sharp fall of the international nickel price.

The share of the general import tax (the main customs tax in New Caledonia), which until 2006 was New Caledonia's main revenue earner, fell by two-thirds in 2007 due to the exceptional yield of the tax on firms (due to the large increase in the nickel price). Five taxes shared between them nearly 60 per cent of total product and customs revenues, representing 21 per cent of total revenue (which reached a minimum in 2007)

- IS 35 (tax on mining and metallurgical firms): 18 per cent
- IS (tax on firms): 13 per cent
- TGI (general import tax): 11 per cent
- IR (income tax): 9 per cent

- TSS (solidarity tax on services): 8 per cent.

Consequently, from 2006 onwards there was a significant inversion of the yields of direct and indirect taxation, which the *Chambre Territoriale des Comptes de la Nouvelle-Calédonie* (CTC 2008:9) sheds light on. Direct taxation—traditionally the lesser source—overtook indirect taxation in 2006 (Figure 2). The crossing of the curves is good in terms of social justice, as redistribution by tax depends mainly on direct taxation (with income taxation being progressive).

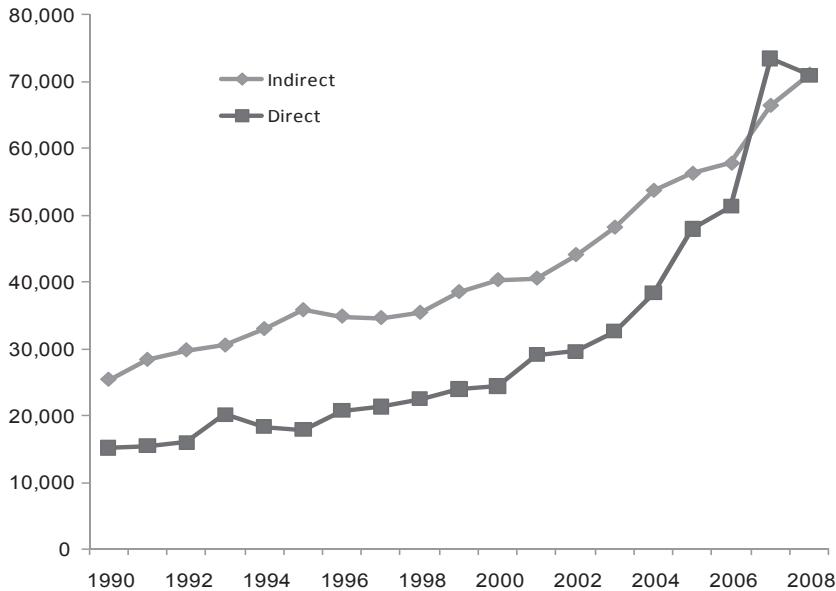
New Caledonia's tax and customs competence. New Caledonia's tax autonomy, which has existed since 1900, allows for taxation that differs from that of Metropolitan France. Thus, reform of New Caledonia's tax regime could lead to solutions unprecedented in Metropolitan France (for a description of various policy experiments that have taken place in France, see Laroque and Salanié 2002:25–48).

The increasing importance of reform stems from the current system being the fruit of 'historic sedimentation', according to the CTC (2008:6): the number of taxes has grown over time and the exemptions have multiplied. The exemptions have turned New Caledonia's customs taxation into a complex system with little efficiency.

The previous New Caledonian government (elected in 2004) launched a large reform of indirect taxation. The objectives of this reform were to replace most of the customs duties with a VAT. But this reform met strong resistance from the industries threatened by imports and the reform was aborted in 2007. The new reform is intended to be prepared from 2011 with the objective of enforcement before 2014 (when the next elections will be held).



Figure 2 Revenue from direct and indirect taxes since 2002 (CFP billion)



Source: New Caledonia Institute of Statistics and Economic Studies: <http://www.isee.nc/douanes/douanes.html>; New Caledonia Institute of Statistics and Economic Studies (ISEE), 2010. *Tableaux de l'économie calédonienne*, Edition abrégée 2009, New Caledonia Institute of Statistics and Economic Studies, Noumea:104

Shifting the taxation of employers' contributions to a new base

A VAT is now found in more than 130 countries (raising about 20 per cent of the world's tax revenue) and has been the centrepiece of tax reform in many developing countries. Most countries that have adopted a VAT seem to have gained a more effective tax instrument in doing so (Keen and Lockwood 2010:138–51). While the VAT and the goods and services tax (GST) have been a part of the tax landscape in Europe for the past 50 years, they have been widely adopted in the Asia Pacific region only in the past 10 to 20 years.¹⁰ As for the social value-added tax (SVAT),

references in English are rare. Indeed, only a few countries have established a SVAT mechanism.

The principles of contributions transfer

The fiscal VAT and social VAT are undifferentiated at the collection level. It is where the taxes are directed that the distinction appears, as the 'social' VAT contributes to the welfare system while the 'fiscal' VAT goes into general revenue (for a discussion of taxes paid by employers and employees, see Picard and Toulemonde 2001:461–70).

Replacing employers' contributions with a social VAT is not neutral. The SVAT is passed fully on to the consumer; it has no bearing on the firms' costs. This is not



the case, however, for the employers' social contributions on wages, which can be only partially passed on to the consumer or employees.¹¹ This is not equivalent in terms of the distribution of the tax burden between employers and consumers: consumers will pay higher prices for local and imported goods and services, and employers will have lower labour costs after removal of the 'tax wedge' on wages (part of the cost of social protection being passed from producers to consumers). This change justifies the fact that such a reform should go along with the social policy of increasing salaries (see above).

The calculation and collection of the SVAT are similar to those for the normal VAT: they apply to all goods sold domestically and do not apply to exports. Export prices are 'non-SVAT' and prices on the domestic market are SVAT inclusive. Herein lies the interest in the social contributions transfer mechanism, which would entail two gains

- reducing export prices by suppressing contributions (hence an increase in competitiveness)
- increasing imported products' prices by adding a SVAT to the VAT (protection of the domestic market).

Establishing such a mechanism would reduce firms' costs (the wage increase being balanced by social contributions deducted from costs).

Such a mechanism has been devised by the Government of New Caledonia elected in May 2009. This initiative is doubly innovative as

- New Caledonia has not adopted a VAT and relies for an important part of its fiscal revenue on customs duty,¹² which is also the case for many small island states in the Pacific (Cook Islands, Fiji,¹³ Papua New Guinea, Samoa, Tonga and Vanuatu; see Appendix 1)

- few countries have adopted a SVAT. In 1987, Denmark achieved tax reform that entailed the suppression (between 1987 and 1989) of the social contributions made by employers. The deficit in public finances was made up by a 22–25 per cent increase in the VAT. In France, the 1994 *Perben Act* established such a mechanism in La Reunion, Guadeloupe and Martinique. More recently, Germany introduced a SVAT on 1 July 2007 (for a presentation on the introduction of the SVAT in Denmark and Germany, see Besson 2007).

Gains expected from a SVAT

The advantages of a SVAT can be divided into four categories.

1. Fighting firms' relocation
 - by reducing labour costs and boosting employment, which should lead to a reduction in 'moonlighting' (Memon 2010)
 - by suppressing tax-related distortions in production costs between goods manufactured locally or imported; this means that a SVAT would apply to domestic products as well as to imported goods. In contrast, employers' contributions to welfare could be seen as a discriminatory tax hitting domestic production and exempting foreign production. Thus, domestic goods are disadvantaged at export and the imports in competition with them on the domestic market are given an advantage. In this way, the traditional VAT system can be seen as an 'inverted customs duty'.
2. Improving the purchasing power of employees
 - with employers' contributions being replaced by a SVAT, labour costs would diminish; consequently, the increase in



net wages after removing the tax wedge would be less than the former wage tax; the net equilibrium wage would increase and the net labour cost paid by employers would decline. The magnitude of this effect would depend on the price elasticity of labour demand.

3. Reducing the public deficit
 - by applying the SVAT to civil servants' pensions; as a consequence, civil service pensions would no longer be financed by the State
 - by making foreign producers contribute to social protection.
4. Promoting a trade surplus
 - by reducing the prices of exports (sold non-inclusive of VAT and SVAT)
 - by increasing the prices of imported goods.

The last three advantages (purchasing power, public deficit, and trade surplus) seem to be the most important in the case of New Caledonia.

Overall, a SVAT should improve competitiveness without reducing demand, which should fuel growth and employment. The increase in competitiveness also boosts purchasing power—the reason being that as employers' contributions have been removed from production costs, increasing salaries would be less penalising for firms. Thus, a SVAT allows for more room to manoeuvre for a resolute policy to improve purchasing power.

The quantitative and dynamic consequences of a SVAT reform have been analysed by Fève, Matheron and Sahuc (2009) using two general equilibrium models. They show that the fiscal reform generates a small, positive, long-run effect and yields a modest welfare gain.

Furthermore, implementing a SVAT would considerably simplify the current tax system in New Caledonia. As outlined

by Bird (2004), one of the most important lessons emerging from experience in various countries is that an essential precondition for the reform of tax administration is to simplify the tax system to ensure that it can be applied effectively (Grandcolas 2005 illustrates some complementary conditions of success of the VAT in the Pacific).

The economic difficulties expected from a SVAT

Fiscal equity. The system of social contributions is progressive whereas a VAT is regressive. The question of equity becomes vital when one focuses on the central issue (substituting a SVAT for contributions), since the increase in VAT rates would apply to individuals who are not directly concerned with the decline in contributions. For instance, Gibson (1998) shows how Papua New Guinea's VAT impacts on consumer welfare, and which items should be exempt from the VAT on the grounds of equity and poverty alleviation.

Equity considerations must be balanced against efficiency considerations; however, in this case, equity is not a major problem. On this issue, see Mankiw, Weinzierl and Yagan (2009), who show clearly that from a theoretical point of view optimal taxation would entail regressive taxation of high wages (the efficiency of stimulating savings outweighing a highly inequitable modality).

Inflation. There would be a real inflation risk from a SVAT if the tax were substituted for employers' contributions (not employees' contributions) and only if the firms did not translate the lower-paid employers' contributions into their selling prices. If one makes the assumption of non-zero elasticities of supply and demand, a fall in labour costs will not be passed fully on to consumers through lower (excluding VAT) prices. It means that price inflation (VAT included) cannot be avoided.



A SVAT as a tool to boost wages?

Gaining manoeuvring room by changing the tax base of social contributions

New Caledonia, like many small island states, is faced with the problem of high living costs (UNESCAP 2009:112). To counter this, the immediate solution might appear to be an increase in wages. But such a measure would meet with important difficulties.

1. In the private sector (where average wages are lower than those of civil servants) there could be no direct action except on the minimum wage (which is currently being done).
2. Increasing the minimum wage might entail a narrowing of wage differentials.
3. Increasing minimum wages would entail difficulties for firms.

Conversely, with an increase in wages accompanying the establishment of a SVAT, it would be possible to improve purchasing power without weighing on

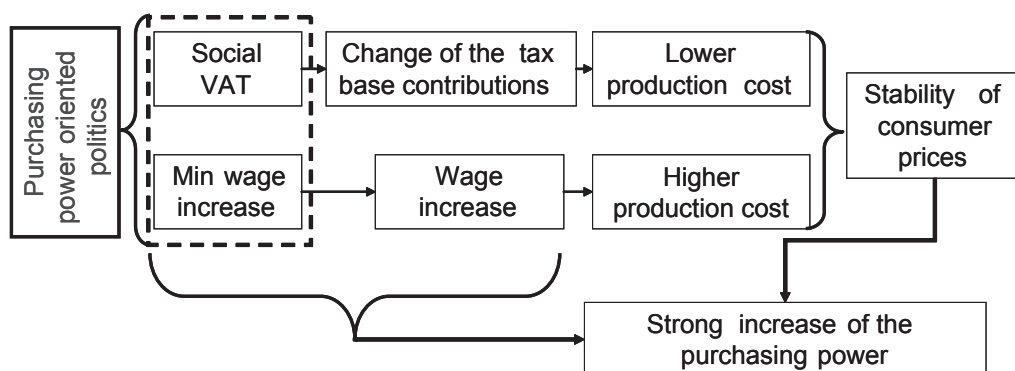
the firms' contributions (Figure 3). Note that Figure 3 considers a SVAT replacing the employers' contributions, not the employees' contributions (in the latter case, an increase in purchasing power would be automatic). As the New Caledonian government has decided to increase the minimum guaranteed wage in many steps from 2010, the question is how to countervail the increase in firms' production costs.

As long as the wage increase did not exceed the amount of the contributions 'saved' in this fashion, the firms' contributions would not increase as a consequence of the reform.

As well as the direct advantages of an increase in purchasing power and stability of the contributions, such a policy would have a number of indirect advantages

1. financing of social contributions would apply on a very wide base and would be less painful
2. firms would benefit from a classic VAT (with more flexibility and more cash flow for enterprises, which should boost the economy)

Figure 3 SVAT with wage increase





3. in a reform in which a fiscal VAT plus a social VAT would substitute for customs duty, the protection of firms in competition with imports would be higher than with a simple VAT; VAT and social VAT also apply to imports.¹⁴

Illustration: a didactic example

Simulating the adoption of a SVAT appears to be a difficult task, as Malinvaud (1998:40) argues:

Let's suppose an undifferentiated diminution of the employers' contributions rate is established simultaneously with a compensatory increase of the VAT rate. This decision should immediately trigger a whole set of reactions, either simultaneous or chain reactions. They will concern prices without VAT and with VAT included, costs, transfers, anticipations. Keeping precise track of this set of reactions would imply a deep knowledge of the forms of

competition, of how wages decisions are made, of the inflexibility of prices and salaries, of how transfer revisions are regulated. All the more so as situations vary from one good to the next, one transfer to the other and as the context where these multiple reactions will occur will itself be influenced by these reactions, notably if there are favourable effects in terms of employment. As we don't possess this deep knowledge required for a precise follow-up beyond a few terms, we must rely on our judgement and schematize by paying attention to relative prices and costs as much as to effects of volume.

To make it easier to understand the mechanism envisaged, we illustrate it here with two examples: 1) products manufactured in New Caledonia; and 2) imported goods (both with a VAT and with a SVAT). We indicate the rates of the employees' and employers' contributions in each case (Table 2).

Table 2 Tax contributions, as of 1 January 2010 (per cent)

| Risk | Employers | Salaried workers | Total | Monthly base (CFP) |
|---|-----------|------------------|-----------|------------------------------------|
| Illness | 11.30 | 3.85 | 15.15 | 0–399,100 |
| Old-age pension | 9.80 | 4.20 | 14.0 | 0–306,500 |
| Family benefits | 6.14 | - | 6.14 | 0–306,500 |
| Unemployment | 1.52 | 0.34 | 1.86 | 0–306,500 |
| Industrial injury | 0.72–6.48 | - | 0.72–6.48 | 0–306,500 |
| Housing social fund | 2.0 | - | 2.0 | 0–258,800 |
| Vocational training | 0.25 | - | 0.25 | 0–306,500 |
| Total of social contributions | 31.73 | 8.39 | 40.12 | |
| Inhouse training | 0.70 | - | 0.70 | Whole salary |
| Exceptional contribution for solidarity | - | 0.75 | 0.75 | On the part of salary over 306,500 |

- zero

Source: New Caledonian Public Health Insurance and Family Benefit Fund: www.cafat.nc.



We make some simple assumptions according to the industry and to the production costs of imports. We normalise at 100 both the retail prices of the local products and the imported products. We consider a 20 per cent average customs duty for industry (which is close to the average tariff rate; see DRD 2010) and a 25 per cent rate for imports (the difference being due to the tariff exemptions for industry inputs). We consider equipment depreciation to be 30 per cent of the cost of raw materials and inputs for local industry and 15 per cent for the import sector;¹⁵ and we consider wages to represent 140 per cent of this cost for industry and 70 per cent for imports. The customs duty rates are 5.5 and 10 per cent, respectively, while employers'

contribution rates are 12.3 and 8.8 per cent, respectively.¹⁶

We then assume an 8 per cent profit rate and apply a VAT rate substituting for tariffs in order to maintain approximately the same level of revenue, and we do the same for a SVAT, substituting for employers' contributions. This results in an 8 per cent fiscal VAT rate¹⁷ and a 15 per cent SVAT rate.¹⁸

This example illustrates

1. the current situation
2. the situation of a VAT substituting for customs duty (at the very least with constant revenue)
3. a VAT substituting for customs duties and a SVAT substituting for employers' contributions

Table 3 Example of a SVAT with a wage increase in New Caledonia

| | Current | | VAT | | SVAT (*) | | SVAT + 10% W | |
|--|----------|--------|----------|--------|----------|--------|--------------|--------|
| | Industry | Import | Industry | Import | Industry | Import | Industry | Import |
| Raw materials, inputs, without tax | 27.7 | | 27.7 | | 27.7 | | 27.7 | |
| Products | | 39.9 | | 39.9 | | 39.9 | | 39.9 |
| Customs duty | 5.5 | 10.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Equipment depreciation | 8.3 | 6.0 | 8.3 | 6.0 | 8.3 | 6.0 | 8.3 | 6.0 |
| Wages without employer's contributions | 38.8 | 27.9 | 38.8 | 27.9 | 38.8 | 27.9 | 42.6 | 30.7 |
| Employer's contributions to the social security | 12.3 | 8.8 | 12.3 | 8.8 | 0.0 | 0.0 | 0.0 | 0.0 |
| Profit before tax | 7.4 | 7.4 | 7.0 | 6.6 | 6.0 | 5.9 | 6.3 | 6.1 |
| Selling price without any VAT | n.a. | n.a. | 94.0 | 89.2 | 80.7 | 79.7 | 84.9 | 82.7 |
| VAT collected | 0.0 | 0.0 | 7.5 | 7.1 | 6.5 | 6.4 | 6.8 | 6.6 |
| SVAT collected | 0.0 | 0.0 | 0.0 | 0.0 | 12.1 | 12.0 | 12.7 | 12.4 |
| Selling price inclusive of tax | 100.0 | 100.0 | 101.54 | 96.4 | 99.3 | 98.0 | 104.5 | 101.7 |
| Variation of the tax revenue | | | 11.1% | -15.0% | 4.2% | -2.6% | 3.8% | 1.1% |
| Variation of the price inclusive of tax | | | 1.5% | -3.6% | -0.7% | -2.0% | 4.5% | 1.7% |
| Variation of real salary (according to industry/import prices) | | | | | | | 5.5% | 8.3% |

n.a. not applicable

(*) Fiscal VAT plus social VAT

Source: Author's calculations



4. a VAT substituting for customs duties and a SVAT accompanied by a 10 per cent wage increase.

We illustrate the effects of a SVAT accompanied by a wage increase on domestic industry and on imports (the wages share in the price differs widely as well as the effects of taxation change) (Table 3). The SVAT consists of the replacement of employers' contributions with a VAT *plus* a fiscal VAT.

The example shows that the selling price to the Caledonian consumer could be left unchanged,¹⁹ with the VAT and SVAT correctly calibrated, and the economy as a whole enjoying the advantages of a SVAT (or simply a VAT). As for imported goods, prices would be increased by the VAT or the SVAT by 23 per cent.²⁰ Yet the situations for the local industry and for imports differ. Should there be a shift to a VAT, the prices of domestic goods would increase whereas the prices of imports would fall. This difference is linked to the customs basis—initially smaller for industry (than for imports) because of important customs tax exemptions for this sector.

Should a SVAT be adopted, industry would enjoy a greater gain than the import sector because of the larger basis for employers' contributions (wages), which would be transferred to the value added. If we consider a fiscal and a social VAT (columns 6 and 7), both the industry and the import sector would experience a price decrease.

If one compares columns 2 and 3 (current situation) with columns 8 and 9, gross salaries would increase by 10 per cent and prices inclusive of tax by 4.5 per cent in the case of industry and by 1.7 per cent in the case of imports. Thus, industry would be penalised in comparison with imports because of the lower customs duty on inputs when a VAT would not *a priori* offer the same flexibility. Yet, conversely, a SVAT (more precisely a dual system of fiscal

and social VATs) would offer compensation in terms of market protection in comparison with what a simple fiscal VAT would do (since the VAT rates would apply to the imports in competition with the local production). If some goods required further transitory protection, specific protection might be used.

Depending on whether one makes calculations in relation to the prices of industrial goods locally transformed or in relation to import prices, the real gross salary would increase by 5.5 or 8.3 per cent. Thus, a positive impact on purchasing power is made possible without penalising firms, which, to the contrary, would benefit from the increase in demand thus created. This highlights the irrelevance of the argument that New Caledonian economic policies under consideration, including the wage increase, would increase prices.

Another argument must be taken into account concerning purchasing power. In the above example, the SVAT columns assume there is no increase in the gross wage rate (before social contributions/wage tax) after the wage tax is replaced with a SVAT. But if we consider non-zero elasticities for the supply and demand of labour, we can show in a simple partial equilibrium framework that the labour demand curve (as a function of the wage rate before social contributions) shifts to the right because the wage tax on employers is removed; this increases the equilibrium quantity of labour supplied and demanded, the equilibrium wage rate, and the total surplus (welfare gain).

To illustrate this point, if we were to consider a 5 per cent increase in the equilibrium wage rate, the above analysis would result in a 3.1 per cent increase of the real wage compared with the prices in the industry sector (5.1 per cent in comparison with imports)—without considering any implementation of a VAT or a SVAT.



Conclusion

While the VAT system has spread to most countries, an important proportion of small island states has not adopted this fiscal tool. In New Caledonia, reform of indirect taxation launched in 2004 was aborted a few years later (CTC 2008:53). Tradespeople and entrepreneurs (that is, the people to be in charge of collecting the tax) were strongly resistant to the introduction of a VAT, mainly because it would mean less tariff protection for domestic production. Other issues could also help explain why the VAT has not been a popular fiscal revenue tool in some small island states: the risk that substituting a VAT for customs duty could entail an inflation shock (due to fixing margins in absolute values in economies with little competitiveness rather than in percentage terms), and with a VAT later applied to this margin, contrary to what happens with customs duty. The traditional argument that the VAT is neutral with respect to resource allocation is hardly relevant in an economy whose sectors include very few processing stages.

New Caledonia and other small island states could, however, have a major interest in this tool by going beyond the traditional use of a VAT. By including the financing of social contributions in this tax (social contributions would be transferred from labour to value added—that is, to consumption, because of the deductibility principle of the VAT system), there would be an improvement in export competitiveness and increased protection from imports (in comparison with shifting to a traditional VAT). Furthermore, the transfer of contributions would permit a wage increase without lessening firms' competitiveness; this would create opportunities to boost purchasing power (and consequently to increase the demand for domestically produced output).

The New Caledonian government is studying such a transfer system with respect to employers' contributions. But

in order to boost purchasing power, it could be more useful to manage with the transfer of employees' contributions. Should the taxation of employees' contributions be added to the SVAT mechanism, the impact on purchasing power would be reinforced.²¹

Whether employers' contributions or employees' contributions are transferred, there should be no need for this reform to be brutal. A VAT could be established while maintaining employers' contributions; the transfer of these contributions to a SVAT could be done gradually by reducing the employers' contributions and increasing VAT rates at the same time.

Having a progressive agenda would comply with Grandcolas's (2004:22) recommendations to ensure the success of fiscal reform: 'in administrative terms, establishing VAT in the Pacific island countries is possible should some conditions be met. First a strong and explicit motivation at the head of the state is needed; next preparing a detailed plan of implementation with realistic dates for the major steps is required.'

The government's intention to carry out fiscal reform and a real wage increase seems real (Gomès 2009). What remains is to determine the best way to meet the different objectives without adversely affecting the economy's competitiveness.

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Notes

- ¹ 6.2 per cent in 2007.
- ² 75 per cent in 2007.
- ³ New Caledonia has a long-established nickel industry, with more than 25 per cent of the world's known nickel resources.
- ⁴ Exports plus imports as a proportion of GDP.
- ⁵ In 2009, the New Caledonian average customs duty was 18.83 per cent (DRD 2010).
- ⁶ For an analysis of the macroeconomic consequences of protectionism for a small island state, see Poirine (2007:26).
- ⁷ Another reason for the overvaluation of GDP in New Caledonia is the 73 per cent higher wages of state public servants compared with those in Metropolitan France.
- ⁸ The most egalitarian countries have a Gini coefficient of about 25 (Japan, Norway). The least egalitarian countries (Brazil, South Africa, Haiti and Botswana) have a coefficient of approximately 60.
- ⁹ The three French Pacific territories share a common currency—the French Pacific franc (CFP)—whose current parity of CFP119.2 to € has been fixed by the French government.
- ¹⁰ VAT was introduced in French Polynesia in 1998 to replace import duties, without inflationary consequences.
- ¹¹ Depending on the price elasticities of labour supply and labour demand, and on the price elasticity of supply and demand for the product sold.
- ¹² Depending on the year, customs duty represents between 20 and 25 per cent of the fiscal revenue of New Caledonia (ISEE 2010:97, 101). See also CTC (2008:23–4).
- ¹³ Narayan and Prasad (2003:5–26) examine issues arising from a 25 per cent increase in the VAT in Fiji in 2003.
- ¹⁴ For this reason, the industries threatened by imports have shown a preference for a SVAT in addition to the traditional VAT: 'It seems that a fiscal reform occurs every 50 years. So this is a unique opportunity, a vast work, in which one can see the emergence of the VAT, which is a tax that will be paid by all New Caledonians. The possibility of a social VAT, which favours the competitiveness of domestic firms in comparison to their foreign competitors, is also considered' (MADE IN 2006).
- ¹⁵ The assumed values for wages and depreciation in relation to raw materials (local industry) and of products (imports) were determined after consulting the former president of the Federation of Industries of New Caledonia as well as the former president of the Tradespeople's Union of New Caledonia.
- ¹⁶ 133.3×31.7 per cent and 66.7×31.7 per cent (percentage of employers' contributions for New Caledonia; see Table 2).
- ¹⁷ This rate would compensate for the loss of customs revenue (although the situations of industry and imports differ: the imported good being cheaper, the VAT applied would be lower in absolute value with the same tax rate). Besides, it is in conformity with the rate planned in the aborted 2007 reform (CTC 2008:54). See Table 3.
- ¹⁸ This would compensate for the loss of the employers' contributions (see Table 3).
- ¹⁹ The impact on prices would depend, for each sector, on the part of salaries in the production cost. The higher this part, the more the selling cost inclusive of tax would decline due to the SVAT substituting for employer contributions. Therefore, prices would decline in certain sectors and increase in others. At the economy-wide level, the effect on prices would be neutral.
- ²⁰ Although the example in Table 2 is only illustrative, it is likely that 23 per cent is close to what would prevail should the SVAT support all social security expenditures. Indeed, in 2006, the Government of New Caledonia was planning to replace CFP36 billion of fiscal revenue with a VAT rate of about 8 per cent. Social contributions amount to approximately CFP65 billion (industrial injury, unemployment, family benefits, and illness). This adds up to about CFP100 billion, which would correspond with an 8 per cent 'global' VAT (fiscal VAT plus social VAT).
- ²¹ The inflation effect would be greater in this case, since the part of the social VAT that would replace the employees' contributions would not be partially offset by a lower labour cost for employers; but the increase in



real wages would be greater than in the case of employers' contributions since employees' contributions would be directly transferred to employees.

References

- Besson, E., 2007. *TVA sociale*, Secrétariat d'Etat chargé de la prospective et de l'évaluation des politiques publiques.
- Bird, R.M., 2004. 'Administrative dimensions of tax reform', *Asia Pacific Tax Bulletin*, March:134–50.
- Brard, J.-P., 2007. *Rapport d'information relatif à l'amélioration de la transparence des règles applicables aux pensions de retraite et aux rémunérations outre-mer*, Commission des finances, de l'économie générale et du plan, Assemblée nationale, (3,870) (March).
- Chambre Territoriale des Comptes de la Nouvelle-Calédonie (CTC), 2008. *Rapport d'observations définitives établi à la suite de l'examen de la gestion des recettes fiscales et douanières de la Nouvelle-Calédonie*, Chambre Territoriale des Comptes de la Nouvelle-Calédonie, Noumea.
- Comptes Economiques Rapides de l'Outre-Mer (CEROM), 2008. *Les défis de la croissance calédonienne*.
- Direction Régionales de Douanes de Nouvelle-Calédonie (DRD), 2010. *Evolution annuelle des recettes douanières*, Tableaux de bord budgétaires 2009.
- Fève, P., Matheron, J. and Sahuc, J.-G., 2009. *Social VAT: good or bad idea?*, Banque de France, Paris.
- Gibson, J., 1998. 'Indirect tax reform and the poor in Papua New Guinea', *Pacific Economic Bulletin*, 13(2):40–53.
- Gomès, P., 2009. *Discours de politique générale de Monsieur Philippe Gomès* *Président du Gouvernement de la Nouvelle-Calédonie*, August.
- Grandcolas, C., 2004. 'VAT in the Pacific islands', *Asia-Pacific Tax Bulletin*, January/February.
- , 2005. 'The occasional failure in VAT implementation: lessons for the Pacific', *Asia-Pacific Tax Bulletin*, January/February:6–13.
- ISEE, 2010, p. 97 and p. 101. See also CTC, 2008, pp. 23–24
- Kaufman, U., 2009. 'Pacific trade liberalisation and tariff revenues', *Pacific Economic Bulletin*, 24(3):173–82.
- Keen, M. and Lockwood B., 2010. 'The value added tax: its causes and consequences', *Journal of Development Economics*, 92:138–51.
- Lagadec, G., 2009. 'La Nouvelle-Calédonie face à la crise économique—Relance salariale et réforme fiscale vs syndrome antillais', 25 èmes Journées ATM–CREA, Luxembourg.
- Lagadec, G. and Ris, C., 2010. *La conjoncture économique dans la région Asie-Pacifique après la crise des subprime*, MPRA Paper no. 23304.
- Laroque, G. and Salanié, B., 2002. 'Labor market institutions and employment in France', *Journal of Applied Econometrics*, 17:25–48.
- MADE IN, 2006. 'Une réforme de la fiscalité', *Magazine de l'industrie de Nouvelle-Calédonie*, (7) (April).
- Mankiw, G., Weinzierl, M. and Yagan, D., 2009. 'Optimal taxation in theory and in practice', *Journal of Economic Perspectives*, 23(4):147–74.
- Malinvaud, E., 1998. *Les cotisations sociales à la charge des employeurs: analyse économique*, *Rapport du CAE*, La Documentation française.



- Memon, N., 2010. 'Prioritizing principles of a good tax system for small business in informal economies', *Australian Tax Forum*, 1 April.
- Narayan, P.K. and Prasad, B.C., 2003. 'Fiji national budget 2003: building a resilient economy?', *Pacific Economic Bulletin*, 18(2):5–26.
- New Caledonia Institute of Statistics and Economic Studies (ISEE), 2010. *Tableaux de l'économie calédonienne*, Edition abrégée 2009, New Caledonia Institute of Statistics and Economic Studies, Noumea.
- Picard, P. and Toulemonde, E., 2001. 'On the equivalence of taxes paid by employers and employees', *Scottish Journal of Political Economy*, 48:461–70.
- Poirine B., 2007. *Eloignement, insularité et compétitivité dans les petites économies d'outre-mer*, Document de travail No.52, Agence Française de Développement, Paris.
- , 2010. 'The economy of French Polynesia: past, present and future', *Pacific Economic Bulletin*, 25(1):24–34.
- PNUD, 2009. *Rapport mondial sur le développement humain 2007/2008*, 399 pp
- Sudrie, O., 2009. Protégée par son introversion, l'économie hors nickel résiste bien à la crise, Conférence, CPS, Nouméa, 2 avril.
- United Nations Development Programme (UNDP), 2009. *Human Development Report 2007–08*, United Nations Development Programme, New York
- United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP), 2009. *Economic and Social Survey of Asia and the Pacific 2009—addressing triple threats to development*, United Nations Economic and Social Commission for Asia and the Pacific, Bangkok.
- World Trade Organization and United Nations Conference on Trade and Development (WTO and UNCTAD), 2009. *World Tariff Profiles 2009*, WTO Publications, World Trade Organization, Washington, DC.



Appendix 1

Public revenue in Pacific countries

| | Population | HDI | Total revenue & grants/ GDP (%) | Average tariff rate (%) | VAT | VAT rate (%) | Customs revenue/ total revenue & grants (%) | VAT revenue/ total revenues & grants (%) |
|--------------------------------|------------|-------|---------------------------------|-------------------------|-----|--------------|---|--|
| Australia | 20,743,000 | 0.962 | 36.0 | 5.3 | Yes | 10.0 | 2.1 | 15.9 |
| Cook Islands | 18,900 | .. | 34.2 | 7.0 | Yes | 12.5 | 11.2 | 31.9 |
| Federated States of Micronesia | 111,000 | 0.569 | 59.1 | 4.2 | No | n.a. | 6.4 | n.a. |
| Fiji | 839,000 | 0.762 | 24.1 | 15.6 | Yes | 12.5 | 16.4 | 31.4 |
| Kiribati | 95,000 | 0.515 | 90.9 | 17.2 | No | n.a. | 13.6 | n.a. |
| New Caledonia | 250,000 | 0.878 | 39.9 (*) | 18.8 | No | n.a. | 14.8 (*) | n.a. |
| New Zealand | 4,180,000 | 0.943 | 36.0 | 3.2 | Yes | 12.5 | 3.2 | 29.5 |
| Niue | 2,200 | .. | 90 | | No | n.a. | 21.4 | n.a. |
| Palau | 20,000 | 0.861 | 27.6 | 3.02 | No | n.a. | 6.7 | n.a. |
| Papua New Guinea | 6,330,000 | 0.53 | 36.1 | 32.1 (**) | Yes | 10.0 | 5.5 | 8.3 |
| Republic of Marshall Islands | 59,000 | 0.563 | 65.2 | 9 | No | n.a. | 7.6 | n.a. |
| Samoa | 187,000 | 0.785 | 32.5 | 7 | Yes | 12.5 - 15 | 9.4 | 23.1 |
| Solomon Islands | 500,000 | 0.602 | 65.9 | 78.6 (**) | No | n.a. | 25.0 | n.a. |
| Tonga | 100,000 | 0.819 | 35.7 | 17.6 | Yes | 15.0 | 27.5 | 36.2 |
| Tuvalu | 11,000 | 0.583 | 126 | 15 | No | n.a. | 21.8 | n.a. |
| Vanuatu | 226,000 | 0.674 | 30.1 | 25.1 | Yes | 12.5 | 23.0 | 27.5 |

n.a. not applicable

.. not available

(*) Grants include civil servants' wages paid by France, which feed the tax base and so create a kind of double account.

(**) Simple average MFN applied: 4.9 per cent for Papua New Guinea; 9.9 per cent for Solomon Islands.

Sources: Authors' computations using data from Comptes Economiques Rapides de l'Outre-Mer (CEROM), 2008. *Les défis de la croissance calédonienne*; United Nations Development Programme (UNDP), 2009. *Human Development Report 2007-08*, United Nations Development Programme, New York; doingbusiness.org; official web sites of the French Ministry of Foreign Affairs, the Australian Government and the New Zealand Government; Kaufman, U., 2009. 'Pacific trade liberalisation and tariff revenues', *Pacific Economic Bulletin*, 24(3):173-82; World Trade Organization and United Nations Conference on Trade and Development (WTO and UNCTAD), 2009. *World Tariff Profiles 2009*, WTO Publications, World Trade Organization, Washington, DC.