

Determining the risks of a sovereign debt default in South Africa, and the consequences thereof; an international overview.

[3 807]

1. INTRODUCTION

One of the most dramatic fiscal decisions that a government can make is to default on its national debt. A national debt default refers to a situation in which a state is no longer willing or able to repay the debt that it owes. A state can default on the interest that it owes, or on its principal debt (Oosterlinck, 2013: 698). History is littered with examples of national debt defaults. Infamously, Habsburg Spain defaulted on its debt four times in quick succession; in the years 1557, 1560, 1575 and 1596. Spain would default on its debt nine more times before 1900 (Drelichman & Voth, 2010: 813). It has been pointed out that national debt defaults were quite commonplace throughout history (Reinhart & Rogoff, 2009).

The occurrence of debt defaults is by no means relegated to history. Between 1970 and 2017, there were 79 incidents of governments defaulting on their debt or restructuring it (Laeven & Valencia, 2020: 312). Globally, it is expected that the Covid-19 crisis will put more countries under fiscal pressure and that it will possibly cause some countries to default on its debt (Paczos & Shakhnov, 2020). The Covid-19 crisis caused an explosion in most countries' debt-to-GDP ratio, due to both a contraction in Gross Domestic Product (GDP) and an increase in government deficits (Paczos & Shakhnov, 2020).

South Africa is no exception to this debt explosion. Its debt-to-GDP ratio has increased by 37.5 percentage points in ten years, from 26% in 2008/2009 to 63.5% in 2019/2020 (Burger & Calitz, 2021: 3-4). A contraction in the country's GDP and a fiscal stimulus package of R500 billion is expected to increase this ratio to 81.8% in 2020/2021 (Burger & Calitz, 2021: 4). This is because tax revenues were significantly reduced, while more money was spent on public health and social security (SARB, 2021: 23). Even before the true fiscal damage of Covid-19 was apparent, Moody's downgraded South Africa's credit rating to below investment grade (Cronje, 2020).

Within this context, South Africa faces the risk of a sovereign debt default. This essay will make use of international experiences to discuss the determinants of a default, such as a high

external debt-to-GDP ratio, high interest rate payments and fiscal shocks. Furthermore, it will be pointed out that defaulting countries experienced deep cuts in both GDP and employment, and that a debt default could often lead to a banking crisis as well. To conclude, it will be argued that these are economic costs that South Africa cannot afford to incur.

2. DETERMINANTS OF SOVEREIGN DEBT DEFAULT

The exact factors that cause a debt default has been an important topic of study. It is generally recognised that there is no single factor that determines whether a country will default on its debt or not, not even a country's debt-to-GDP ratio. In this regard, it is worthwhile to note that Japan can maintain a debt-to-GDP ratio of over 200%, although a 30% debt-to-GDP ratio in Ukraine forced that country to default (Debrun *et al.*, 2019). It is therefore important to consider the additional factors that caused a 30% debt-to-GDP ratio to be unsustainable in the Ukraine, while a 200% debt-to-GDP ratio seems to be manageable in a country like Japan.

There are various factors that can contribute to a country's inability to service its debts. These factors can largely be grouped into three categories: macroeconomic factors, political factors and institutional factors. The factors within each category will be discussed.

2.1. Macroeconomic factors

The conditions of the underlying macroeconomy can determine whether a country can repay its debt or not. The overall debt-to-GDP ratio can be an important determinant of a country's risk of a sovereign default, but it is not the only important determinant. The total external debt-to-GDP ratio has, in the international context, been found to be of high importance (Manasse & Roubini, 2009: 200). The higher the ratio of debt-to-GDP held by foreign lenders, the higher the risk of a sovereign debt default. In fact, it has been found that a 1% increase in the external debt-to-GDP ratio can increase the probability of a default by 5% to 7% (Ghulam & Derber, 2018: 43). This result is stronger in the context of an overvalued and highly volatile exchange rate (Manasse & Roubini, 2009: 200). Since external debt has to be repaid in foreign currency, a volatile exchange rate can change the total cost of a country's external debt in dramatic and unpredictable ways. Furthermore, higher interest rates on United States (US) treasury bills have a positive relationship with the probability of a debt default (Ghulam & Derber, 2018: 53). The higher the interest rates on US treasury bills, the more likely a given country is to default on its debts.

Another important indicator of the likelihood to default is the sustainability of a country's existing debts. The sustainability can be driven by various factors. Higher existing level of GDP per capita and higher growth in GDP per capita reduces the likelihood of a debt default (Ghulam & Derber, 2018: 52). This is to be expected since a growth in GDP per capita reduces the debt-to-GDP ratio through increasing overall tax revenues. The interest rate also has an important role to play, considering that this is the cost of holding debt for the government. The size of interest payments has an important impact on the likelihood of a debt default (Chakrabarti & Zeaiter, 2014: 300). The higher interest payments become, the larger the likelihood of a debt default. An important truism in the literature on public finance is that the debt-to-GDP ratio tends to increase when interest rates are higher than rates of real GDP growth (Debrun *et al.*, 2019). This is highlighted by the equation below:

$$d_t = (1 + r)/(1 + g)d_{t-1} - s$$

In the equation above, d_t symbolizes the debt-to-GDP ratio in period t , while d_{t-1} is the debt-to-GDP ratio in the previous period (Blanchard *et al.*, 2021: 4). r refers to the interest rate, g refers to the real GDP growth rate and s is primary balance, so a negative s would be a primary deficit. As seen from the equation, when interest rates are higher than GDP growth rates, a primary surplus is needed for debt to be sustainable (Blanchard *et al.*, 2021: 4). Finally, high rates of inflation have also been associated with a sovereign debt default (Manasse & Roubini, 2009: 193). A 1% increase in the inflation rate has been associated with a 7% increase in the probability of default (Ghulam & Derber, 2018: 43). This could be because governments try to use inflation to reduce the value of their debt in real terms, but this can have the adverse result of making lenders less willing to hold government bonds.

While the external debt-to-GDP ratio and the underlying sustainability of a country's debt are important conditions, it sometimes still requires an economic shock to trigger a default. For example, the economic shock caused by Covid-19 caused Zambia to default on its interest payments (Asala, 2020). Elsewhere in the literature, it has been noted that the bailing out of large state-owned enterprises (SOEs) present another economic shock (Debrun *et al.*, 2019). Economic shocks can come in various forms and they are by nature unpredictable. Consequently, it could be necessary for a government to retain a strong fiscal position to respond to unexpected shocks in an optimal and fiscally sustainable manner.

2.2. Political factors

Separate from its economic ability to repay its debt, a government must also be willing to repay its debt, which tends to be a more political question. When there is doubt about a government's willingness to pay its debt, or general political uncertainty, there is a larger likelihood of a debt default (Manasse & Roubini, 2009; Cecchetti & Schoenholtz, 2018). This political uncertainty can lead to economic uncertainty as well, which exacerbates the likelihood of a default (Manasse & Roubini, 2009: 51). Other political risks that increase the probability of a debt default includes high levels of corruption, election cycles, low levels of democratic accountability and stability, and high levels of both military involvement in government and ethnic tensions (Chakrabarti & Zeaiter, 2014; Ghulam & Derber, 2018). In general, as the political situation in a country deteriorates, the risk of a default increases.

2.3. Institutional factors

The final category of risk factors for a sovereign debt default are institutional factors. In general, poor economic institutions, which lead to poor economic policies, will increase a country's likelihood of debt default (Gunduz, 2017: 5). In the context of the study performed by Gunduz, and another study performed by Kraay and Nehru, weak economic institutions are defined as an absence of property rights (2017: 35; 354). However, institutional quality is often judged in terms of how fiscal authorities have responded to previous periods of high debt. Various scholars have pointed out that a history of quick and aggressive responses to high levels of public debt decreases the likelihood of a sovereign debt crisis (Debrun *et al.*, 2019). If fiscal authorities have responded inadequately in the past, the risk of a sovereign debt crisis increases (Kraay & Nehru, 2006: 355). Elsewhere, it has also been noted that there are benefits, in terms of debt sustainability, for countries that are transparent about their debt levels and their debt structure (Ayadi & Avgouleas, 2020). Consequently, both the overall institutional conditions of a country and the institutional responses to similar previous crises are important to consider.

3. APPLICATION TO SOUTH AFRICA

The aforementioned lessons from the international experience can be applied to the South African context. Table 1 highlights some of the upside and downside risks faced by the South

African fiscus. These risks can ameliorate (upside) or exacerbate (downside) the risk of a sovereign debt default.

Table 1: Upside and downside risks to the South African fiscus.

<u>Upside:</u>	<u>Downside:</u>
Strong Rand-denominated bond market	
Rand-denominated debt	Volatile exchange rate
	Low GDP and GDP per capita growth rates
Undervalued currency	Interest rates higher than GDP growth
Low inflation and low interest rates	Increasing debt-servicing costs
Low interest rates on US Treasury Bills	High rates of corruption
Lack of military involvement in government	
Historically strong institutional response to debt	Political uncertainty
	Shock of Covid-19
	Struggling and risky SOEs
	Public sector wage bill

Source: Discussed in text.

In the context of the international experience, it is important to highlight which factors in the South African context contribute to a lower risk of a sovereign debt default. South Africa is characterized by a strong and developed Rand-denominated bond market (Kganyago, 2020: 7). This has reduced the external debt-to-GDP ratio of the country (although it has recently been increasing), since the fiscus could rely on local borrowing. Furthermore, a debt crisis is more likely to occur in the presence of an overvalued currency. It is therefore reassuring that the Rand is often rated as one of the most undervalued currencies in the world (Business Insider SA, 2020). South Africa is also currently experiencing an environment of both low inflation and low interest rates (Mahlaka, 2021). This means that, for debt denominated locally, the interest repayments are lower, while an environment of low inflation reduces the likelihood of a default. Most of South Africa's debt is denominated in Rand terms, meaning that it benefits from the lower interest rate environment and that it is less exposed to exchange rate shocks (SARB, 2020: 96). Currently, interest rates on US Treasury Bills are also relatively low, further reducing the likelihood of a default (Chang, 2020). Politically, the military is not involved in government. Institutionally, the National Treasury had a strong

tradition of supporting sustainable fiscal policy, often returning to a sustainable level of debt after a period of increasing deficits and debts (Calitz *et al.*, 2014: 55). These are factors that reduce the likelihood of a default.

However, there are various factors that pose a large risk for a default. South Africa has a notoriously volatile exchange rate, often because of local and foreign shocks, and currency speculation (Miyajima, 2020: 404). Furthermore, South Africa's debt does not appear to be sustainable, given the current economic circumstances. GDP per capita has grown by less than 2% annually since 2008, with negative growth rates since 2015 (World Bank, 2021). Additionally, even though interest rates are currently at record lows, it is still at a higher rate than real GDP growth in South Africa. Since 2014, real GDP has grown by less than 2% annually, while interest rates are much higher (World Bank, 2021). At the same time, the government has run a consistent budget deficit, which is unsustainable, as shown by the equation on page 3. Consequently, debt-servicing costs have been increasing significantly. By the end of 2021, debt-servicing costs are estimated to make up 20% of all government spending (SARB, 2021: 24). Given that debt-servicing costs, which is given by the interest rate, is higher than the rate of economic growth, a bigger primary budget surplus is required to bring the government's debt on to a sustainable track (SARB, 2020: 95). This is a clear indication of the unsustainability of debt.

Various political factors in South Africa also contributes to an increasing likelihood of debt default. The most salient example of this is the high rates of corruption in South Africa. According to Transparency International, South Africa scored 44 points out of a total of 100 on their Corruption Perception Index in 2020 - where a lower score indicates more corruption. This score has stayed roughly constant, increasing by only 1 point since 2012 (Transparency International, 2020). When countries are ordered from least corrupt to most corrupt, South Africa only ranks 69th out of 180 countries (Transparency International, 2020). Furthermore, South Africa is characterized as politically unstable, mostly due to the economic issues of poverty, unemployment and inequality (Cilliers & Aucoin, 2016: 2). These factors drive increasing levels of violence and violent demonstrations (Cilliers & Aucoin, 2016: 6). This is another important risk-factor for a debt default, especially if it leads to increasingly ambitious, but unaffordable, economic and political promises.

Finally, South Africa has recently suffered from a series of shocks that undermines its ability to repay its debts. The Covid-19 crisis has dramatically increased both the size of the

government's deficit and the level of its debt, as mentioned in the introduction. Struggling state-owned enterprises (SOEs) has already claimed R187 billion in bail outs from the state in the previous 20 years (Mabuza, 2020). Despite this, SOEs like Eskom, South African Airways (SAA) and Transnet still place a significant strain on the fiscus. For example, Eskom has a debt level of around R440 billion. Of this amount, 62% is supported by guarantees from the state (Kruger, 2019). Finally, public sector unions are still demanding exorbitant wage increases, despite Treasury's insistence on its unaffordability (Maeko, 2021). This has been identified as one of the largest risks to the future fiscal position of the government (Rolland *et al.*, 2021). These three factors will continue to place pressure on the government's fiscal position and a shock in any of these areas, such as the insolvency of Eskom or prolonged public sector strikes, could significantly increase the likelihood of a debt default.

4. COST OF DEFAULT

Across the world, the impact of debt defaults has been far-reaching and painful. One cost is in terms of a decrease in output, measured by a country's GDP. In 23 cases of a sovereign default between 1977 and 2009, a country's GDP decreased by 5% on average (Mendoza & Yue, 2012: 889). This is partly driven by steeply increasing interest rates, which usually peaks contemporaneously with the largest contraction in output (Mendoza & Yue, 2012: 890). However, the use of quarterly GDP statistics, rather than annual statistics, has shown that the largest decrease in GDP occurs in the quarters before the announcement of a debt default, while the debt default itself usually signifies the beginning of a recovery from the pre-default period (Yeyati & Panizza, 2011: 95). Nevertheless, for 39 developing countries that experienced a default between 1970 and 2005, the average decline in GDP in the run-up to the default or after the default was 3 percentage points (Yeyati & Panizza, 2011: 98).

When studying the 92 external default events in various countries from 1970 to 2010, another study finds a similar negative immediate impact of 2,7%, with the total decrease in GDP reaching 3,7% five years after the default (Kushinov & Zimmermann, 2019: 2). Other studies have shown that there is a strong and significant decrease in GDP after a debt repayment has been missed. This decrease has a cumulative size of between 1 and 4 percentage points, three years after the default (Asonuma *et al.*, 2019: 4). This is because debt defaults tend to severely undermine investor confidence (Mphaphuli, 2021). Defaults also lead to a general decrease in firms' equity, while it is particularly damaging for export-orientated firms

(Hebert & Schreger, 2017; Borensztein & Panizza, 2009: 707). While there is disagreement about the exact timing of when the contraction occurs, there is a broad agreement that a contraction will occur and that it will be deep and long-lasting.

Because of the general economic contraction, employment suffers as well. By some estimates, levels of employment after a debt default can be 15% lower than in the three years that led up to the default (Mendoza & Yue, 2012: 889). Similarly to GDP, it has been argued that a decrease in employment occurs in the period leading up to a default, with the default pointing to the start of an economic recovery (Yeyati & Panizza, 2011: 102). However, there is an unambiguous decrease in employment. Such a decrease in employment might be expected, given the concomitant decrease in real GDP. However, it has been argued that a decrease in GDP, in the presence of a sovereign debt default, decreases employment by more than a similar decrease in real GDP, without a sovereign debt default, would. Defaulting has a negative effect on employment, over and above the effect of a decrease in GDP (Tavares, 2019: 1). This is because, in response to a default, governments often levy additional income taxes, which can distort the labour market. The higher interest rates faced by a government also spills over into the private sector, making it harder for firms to finance their capital (Tavares, 2019: 1-2). Consequently, employment suffers by more than would have been predicted by just the declining real GDP.

Another important cost of a sovereign debt default is that it can induce a banking crisis. This can elicit a variety of additional economic costs, and the occurrence of both a sovereign debt default and a banking crisis is often referred to as a 'twin crisis' (Balteanu & Erce, 2014). International experience has shown that, especially in developing countries, large commercial banks hold a large number of government bonds (Gennaiooli *et al.*, 2014; Borensztein & Panizza, 2009: 685). When a government defaults, these bonds are not repaid, which can cause a banking crisis. Furthermore, after a default, banks tend to dramatically reduce the number of loans that they issue, because of the banking crisis (Gennaiooli *et al.*, 2014). This throttles investment, making it harder for companies and consumers to take out loans for productive investments. A banking crisis leads to an even greater loss of foreign investor confidence and the negative impact on economic growth is more dramatic (Balteanu & Erce, 2014). International experience has shown that, when a debt default is followed by a banking crisis, the cut in GDP is double what it would be without a banking crisis. This is primarily driven by a severe decline in investment (Kushinov & Zimmerman, 2019: 2). A banking crisis itself can have a persistently negative effect on a country's economic output, long after

the occurrence of the crisis (Laeven & Valencia, 2020: 328). Consequently, the cost of a sovereign debt default is exacerbated if it is followed by a banking crisis.

5. COST TO SOUTH AFRICA

From the preceding analysis, it is clear that a debt default will have a predictably severe cost for the South African economy. The large decrease in output will be costly, especially given the slow rate of economic growth in the recent past (World Bank, 2021). Any decrease in employment would also be unacceptable, given the very high rate of unemployment in the country. The country would run the risk of a banking crisis as well. Commercial banks have increasingly invested in government bonds, considering the relatively high returns on offer. Around 17% of commercial banks' total assets consist of government bonds (SARB, 2021: 28). If the government should default, the banks would not be paid out this amount, putting severe pressure on their balance sheets. South African banks have already become less profitable because of the slow economic growth in the country and the lack of credit demand, leading to a weakening in their balance sheets (Kantor, 2018). A sovereign debt crisis is therefore likely to lead to a banking crisis, with all of its concomitant costs. Consequently, a sovereign debt default will be extremely costly to the South African economy.

6. CONCLUSION

This essay has drawn on international experiences to study what the determinants of a sovereign debt default are, and what costs are associated with a sovereign debt default. These findings were then applied to the case of South Africa. It was found that various macroeconomic, political and institutional factors are important determinants of a sovereign debt default. South Africa faces a growing risk of a debt default, considering its increasing debt-to-GDP ratio, higher debt-servicing costs and the slow economic growth faced by the country. Furthermore, any additional shocks, like the current pandemic, high-risk contingency liabilities or excessive public sector wage increases, will exacerbate the likelihood of a sovereign debt default.

The international experience has shown that sovereign defaults are costly. It causes significant decreases in a country's GDP and in its employment rate, mostly through the

channel of decreasing investor confidence and investment. It can also cause a banking crisis, which worsens the cuts in GDP and employment.

These are costs that South Africa can ill-afford, so it is imperative to pay more attention to, and attempt to nullify, the most pressing threats to the South African fiscus. This means reigning in the excessive public sector wage bill and ensuring that SOE's are run effectively and in a sustainable manner. Furthermore, urgent structural reforms are required to place the country on a higher economic growth path, so that less of a budget surplus is required to stabilize the government's debt. Finally, it is vitally important that, should a debt default be inevitable, a banking crisis is avoided. To this end, stress-testing of the financial system is required, and banks' balance sheets should be strong enough to withstand a potential debt default.

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