

RESEARCH NOTE

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Revision: N/A Issued to: N/A

Subject: Economic Analysis for Non-Economists: The Investment Case for Myanmar 2019

Purpose & Introduction

This technical note attempts to assist non-economists in the task of performing an initial economic analysis for an emerging market economy, primarily for the purpose of underwriting a cross-border investment. This note makes use of a case study economy (Myanmar), and compares its key economic indicators with other emerging economies in order to provide context for the numbers.

This note is not attempting to be a comprehensive economic analysis of Myanmar, and notably leaves out many important 'soft' attributes of an economy (such as its strategic geographical location, institutions, rule of law, human capital, political environment, etc.) in favour of focusing on key numeric indicators.

Drawing upon the framework of Caverley et al (Caverley, 2017), this note attempts to answer 6 of the most pertinent questions that a foreign investor may ask before investing in an emerging market economy, namely;

1. What are its economic growth prospects?
2. Are fiscal and monetary policies sound?
3. Is the currency competitive, and are external accounts under control?
4. Is external debt under control?
5. Is liquidity plentiful?
6. Is the political situation supportive of the required policies?

A word of caution is however first advised for any numerically-based analysis of emerging market economies, where the informal sector accounts for on average 34% of GDP and is therefore excluded from most indicators (Schneider, 2010). This issue is particularly acute in Myanmar's case, ranking 82 out of 88 developing countries in formalisation of the economy with the informal sector estimated at an additional 50.7% of official GDP between 1999 and 2006 (Schneider, 2010).

1.0 What are its economic growth prospects?

The first question is also arguably the most complex, and here is broken down into 5 sub-questions:

- a. What are current growth rates?
- b. How do these growth rates breakdown across sectors of the economy? Are there any areas being left behind?
- c. Where is the growth coming from? - productivity, labour, or capital accumulation?
- d. How sustainable is the growth?
- e. Where are we in the current business cycle? - trend vs cyclical growth

1.1 What are current growth rates?

Table 1 below captures the key indicators with regards to growth. Overall, the annual growth rate between 2012 and 2017 of the Myanmar economy was an impressive 7.2% (the same as China's over the same period, and higher than Vietnam's 6.2%), despite a slight 'slowdown' to 5.9% in the years following the historic 2015 election. Myanmar's growth post-liberation in 2012 has led to its reclassification from a low-income country to a lower-middle income country in July 2015.

Table 1: GDP Indicators

| Key Indicators | Explanation | Reasonable Level | Myanmar Actual (2015-2018) | | | | | | |
|--------------------------------|---|---|----------------------------|----------|----------|----------|----------|----------|------|
| | | | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
| GDP Growth | Key headline indicator of economic growth | 6-10% would be considered favourable by investors | 7.3% | 8.4% | 8.0% | 7.0% | 5.9% | 6.8% | N/A |
| GDP/capita (Current, USD) | Important indicator of level of wealth per person, and is related to household incomes. | Examples; - China = \$9776 - Vietnam = \$2365 | \$ 1,176 | \$ 1,171 | \$ 1,260 | \$ 1,139 | \$ 1,196 | \$ 1,257 | N/A |
| GDP /capita (PPP, Current USD) | By adjusting for purchasing power, this better represents the standard of living of households, when comparing to other country's PPP GDP/capita. | Examples: - China = \$18,210 - Vietnam = \$6609 | \$ 4,225 | \$ 4,613 | \$ 5,025 | \$ 5,385 | \$ 5,721 | \$ 6,161 | N/A |

Sources: (ADB, 2018). Note: The World Bank has recently updated its growth forecast for 2018/19 from 6.2% to 6.5% (World Bank, 2019).

1.2 How do these growth rates breakdown across the economy?

As of 2018, the largest sector of the economy is the Service sector (43%), followed by Industry (32%) and Agriculture (25%) (World Bank, 2019).

Table 2 shows the breakdown of growth across these 3 main elements of the economy, since liberalisation reforms commenced in 2012.

Table 2: GDP Growth Breakdown by Sectors

| Sectors | CAGR (2012-2017) |
|----------------------------------|------------------|
| INDUSTRY (overall) | 10.0% |
| SERVICES (overall) | 8.9% |
| AGRICULTURE | 2.1% |
| GROSS DOMESTIC PRODUCT (Overall) | 7.2% |

Source: (CSO, 2019)

To provide some more insight into the economy however, Table 3 provides a further breakdown into sub-sectors, and lists them in descending order of growth. Growth in the banking sectors and telecoms has been the strongest sectors over this period, as an under-banked and disconnected country has been catching up with the rest of the world.

Table 3: GDP Growth Breakdown by Sub-Sectors, in descending order

| Sub-Sectors (in order of fastest growing) | CAGR (2012-2017) |
|---|------------------|
| Financial Institutions | 28.4% |
| Communications | 22.0% |
| Mining | 15.7% |
| Rental and Other Services | 12.6% |
| Electric Power | 11.2% |
| Construction | 10.4% |
| Processing and Manufacturing | 9.7% |
| Transportation | 8.1% |
| Energy | 7.9% |
| Social and Administrative Services | 7.7% |
| Trade | 6.3% |
| Livestock and Fishery | 5.5% |
| Agriculture | 1.0% |
| Forestry | -18.1% |

Source: (CSO, 2019)

Possibly of concern is the lower growth in the agricultural sector, especially considering that 70 % of population live in rural areas. Over the same stage of development, China (1991-1996, when agricultural employment fell from 59% to 50%) and Vietnam's (from 1991-2006, when agricultural employment fell from 68% to 50%) growth in agriculture were still both around 4 % (World Bank, 2019). Myanmar's agriculture sector is particularly vulnerable to natural disasters, such as the flooding in 2015 that caused negative growth in agriculture in 2016. There are reasons to be positive however with the new five-year Agricultural Development Strategy and Investment Plan, and more FDI being approved in 2017/18 for agriculture than in the previous 6 years combined (Oxford Business Group, 2019). Myanmar is already the world's 2nd largest exporter of beans and pulses as well as being the 7th largest rice exporter in the world, as it hopes to regain its reputation as the rice bowl of Asia (Oxford Business Group, 2019).

Some development economists believe that land reform and growth in the agricultural sector is the first underpinning pillar of sustained economic development, and it is possible to contrast those East Asian economies that are now stronger (who implemented strong agricultural land reforms) against those weaker economies who didn't (Studwell, 2013). Since issuing the National Land Use Policy ("NLUP") in 2016, Myanmar has been slow to further progress reforms, with some conflicting reforms in 2018 and the NLUP itself being dropped from the penultimate draft of the Myanmar Sustainable Development Plan ("MSDP" – discussed in more detail later). Land reform can be some of the most difficult and politically sensitive reforms that a developing country can make, but it is often very important for sustained growth and therefore Myanmar would do well to make more progress towards passing the National Land Law.

1.3 Where is the growth coming from?

The Solow Growth Model states that;

$$\text{Growth in GDP} = \text{Growth in Productivity} + (\text{Growth in Labour} \times \text{Amount of Labour}) + (\text{Growth in Capital Stock} \times \text{Amount of Capital Stock})$$

The World Bank has performed a 'Solow decomposition analysis' on Myanmar's growth, and estimate that between 2010/11 and 2015/16, growth in productivity contributed 42% to growth, followed by capital accumulation (39%) and employment creation (11%)

(World Bank, 2017). This is following a similar structure of growth as China, Vietnam and Cambodia during their respective periods of liberalisation reform, with over 40% coming from productivity growth.

Going forward, the contribution of labour to GDP growth is expected to gradually pick up, as more women enter the labour market and Myanmar experiences a prolonged demographic dividend (World Bank, 2017), as discussed in the next section.

1.4 How sustainable is the growth?

There are a wide array of factors that contribute to the long-term growth and success of an economy, including; sound economic policies, controlling inflation, human capital improvements, and strong institutions and civil service. Natural endowment of resources can also serve to help a country, and Myanmar is well positioned in this regard with more crude oil reserves than the UK and more natural gas than Thailand (Oxford Business Group, 2019). In this analysis however, we focus on the key structural attributes which lay at the heart of the ‘East Asian Miracle’ (the rise of China, Indonesia, Japan, Korea, Malaysia, and Thailand). In particular;

- High savings rates of East Asian countries (as opposed to consumption)
- Use of these savings for Investment
- Role of FDI in filling any savings-investment gap
- Moving to an export-oriented economy
- Demographics and Urbanisation

Savings rates

Firstly, economists generally agree that the ‘East Asian Miracle’ was heavily influenced by the high level of savings and therefore investment in these economies (ADB, 2009). This was particularly evident post-Asian financial crisis, with Asian countries saving far more than the rest of the world. For example in 2010; China, Korea, and Indonesia saved 52%, 35%, and 35% of GDP respectively, whereas Brazil and Argentina both saved just 21%. Myanmar’s savings rate is also surprisingly high, averaging 33% (2012-2015).

Investment rates

Secondly, these ‘savings’ can translate into ‘investments’ in the economy, via financial institutions and markets, which then powers economic growth. Investment, or more specifically ‘gross fixed capital formation’, is able to be much higher in countries with higher savings. For example Latin American countries have lower gross fixed capital formation (Brazil 22.8%, Argentina 18%, 2010) versus the arguably more successful high-growth Asian economies of the ‘East Asian Miracle’ (China’s 46% in 2010, Korea’s 30.5%).

This ‘investment stage’ of a country’s growth makes intuitive sense, as countries try to catch up with capital stock of the developed world. Countries emerging from agrarian economies will have a very low existing capital stock (China in 1980’s was around 1.5x GDP, whereas the US capital stock is typically > 3x GDP (Kroeber, 2016)) and the forthcoming capital accumulation (machinery, equipment, infrastructure, etc) is the main source of growth (ADB, 2009). It should be noted however that, in order to gain maximum advantage from such capital accumulation, such investments should be directed into assets which will also improve long-term productivity such as necessary infrastructure improvements (Kroeber, 2016).

This concept of investment powering growth can be illustrated through the fundamental ‘expenditure method’ equation for GDP, which shows how GDP is comprised largely as a trade-off between Consumption or Investment (i.e. savings).

$$\text{GDP} = \text{Consumption} + \text{Investment} + (\text{Exports} - \text{Imports})$$

This equation is represented vertically in tabular format for Myanmar in Table 4.

Table 4: GDP Formula Vertically Tabulated for Myanmar, 2012-2018

| Key Indicators | Explanation | Reasonable Level | Myanmar Actual (2015-2018) | | | | | | |
|--------------------|-------------------------------------|------------------|----------------------------|------|------|------|------|------|------|
| | | | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
| Consumption | Consumer and government consumption | | 63% | 67% | 72% | 74% | 74% | 72% | N/A |
| PLUS Investment | | | 31% | 32% | 32% | 35% | 34% | 31% | N/A |
| PLUS Exports | | | 15% | 17% | 18% | 17% | 18% | 19% | N/A |
| MINUS Imports | | | -15% | -23% | -25% | -28% | -27% | -24% | N/A |
| (plus discrepancy) | | | 6% | 7% | 4% | 2% | 2% | 1% | N/A |
| EQUALS GDP | | | 100% | 100% | 100% | 100% | 100% | 100% | N/A |

Source: (ADB, 2018)

The ‘Investment’ in the table are consistently above 30%, suggesting that Myanmar is more closely following the East Asian model of development rather than the Latin American approach. These investment figures also closely matches the ‘gross fixed capital formation’ for Myanmar (which averaged 32.8% from 2012-2015), as should be expected.

FDI

Although Myanmar's domestic savings at around 33% may appear *prima facie* to be sufficient for the country's investment of 32.8%, in reality not all of the savings will be able to be mobilised into investments due to an underdeveloped and inefficient financial system. In reality therefore, it is likely that there is a 'gap' between domestic savings and investments in the Myanmar.

Oftentimes, the 'gap' between savings and investment is filled by FDI inflows into the country. In Myanmar, FDI inflows have averaged a respectable 4.6% of GDP (2012-2017), versus China's 3.8% and Vietnam's 6% (both for 1990-2010). It should be noted however that FDI approvals are significantly higher than actual FDI, which may lead to increased FDI inflows in the short-to-medium term. The risk of depending too much on FDI however is if such inflows are suddenly reduced (for example due to political concerns), Myanmar's investment in capital stock will reduce significantly (as well as potentially causing a 'balance of payments' crisis – discussed further in Section 3).

Export & Trade

In developing countries, establishing a robust export base is often critical to long-term growth. The export industry can take advantage of both Myanmar's competitive advantage of cheap labour regionally, as well as improve the balance of payments as noted later. The growth of exports in Myanmar from 2012-2018 averaged a respectable 8.5% annually, however this is still substantially below China's 27% annual growth in exports between 2001-2008, which shows that there is still considerable scope for increasing Myanmar's exports.

Table 5 below shows 3 key indicators relating to Trade Openness, the Trade Balance and the Terms of Trade.

Table 5: External Trade Indicators for Myanmar, 2012-2018

| Key Indicators | Explanation | Reasonable Level | Myanmar Actual (2015-2018) | | | | | | |
|----------------------|--|--|----------------------------|-------|-------|-------|-------|-------|------|
| | | | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
| Trade Openness Ratio | Exports & Imports as a % of GDP. Measures how important international trade is to the economy. | N/A. Varies widely across countries. | 0.30 | 0.36 | 0.41 | 0.45 | 0.40 | 0.41 | N/A |
| Trade Balance | Exports - Imports. This is also the main component of the 'Current Account Balance' noted elsewhere. | Positive is preferable, but better than -5% is likely ok in short term | 1.9% | -3.4% | -4.4% | -6.1% | -2.9% | -0.1% | N/A |
| Terms of Trade | Price of Exports to Price of Imports. A decreasing numbers is said to be a 'deterioration' in Terms of Trade, however this also means that a countries exports are becoming more competitive, which is often a positive for export-orientated economies. | See explanation, | 115.0 | 114.5 | 111.3 | 103.5 | 96.0 | 98.4 | N/A |

Sources: (ADB, 2018) (World Bank, 2019)

All three indicators signal positive news for Myanmar; the country is opening up to more trade flows, the trade deficit is reducing, and the terms of trade have 'deteriorated' which in fact means exports will be more competitive. At the time of writing, the last two months (October & November 2019) have in fact generated a trade surplus, although a proportion of the pick-up in exports is driven by seasonal factors (the end of the rainy season) and hence it remains to be seen whether or not whether the full year 2019/20 will generate Myanmar's first post-liberalisation trade surplus overall (Sandar, 2019).

Finally, it should also be remembered that both export and import figures in Myanmar are generally understood to be grossly underreported, due to the unreported (informal) border trade with neighbouring countries.

Demographics & Urbanisation

The dependency ratio attempts to illustrate the percentage of the population who are not working (and hence 'dependent' on others, who are working and paying taxes, to survive) compared to those who are working. In the past, China can be seen to have enjoyed a particularly deep and long 'demographic dividend' from around 1990's until recently, with a low dependency ratio. Now however, in China as well as other Asian economies, this ratio is steadily rising and is projected continue for the next 50 years, which will become a drag on growth (see Figure 1).

In contrast, Myanmar's dependency ratio has been steadily declining and will not start to reverse until after 2060, suggesting potential for a longer-term demographic dividend, which should help to support a longer period of sustained growth than its neighbours (IMF, 2019).

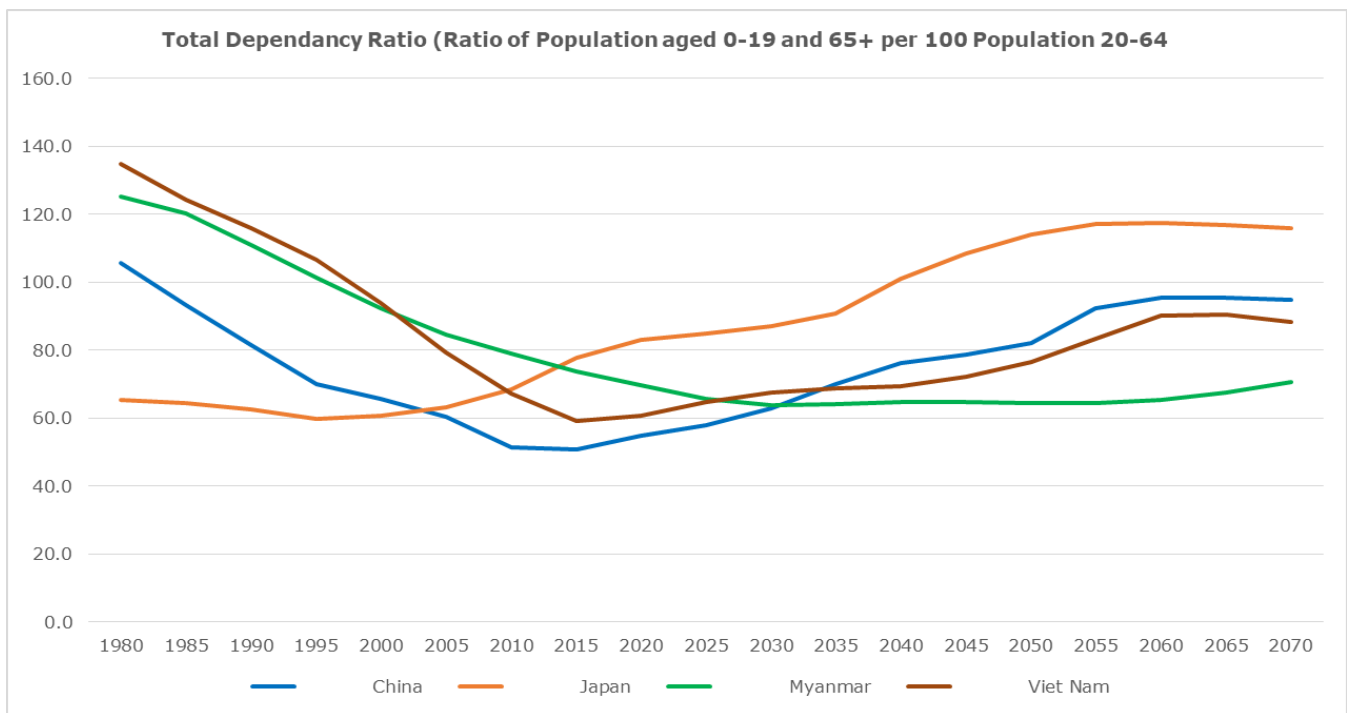


Figure 1: Total Dependency Ratio; China, Japan, Myanmar, Vietnam (UN, 2019)

This same story is also reflected by the median age. Whilst China's median age is now 37 years (it was 27 in the year 2000), Myanmar's is only 28, which is also less than Vietnam's 31 and Japan's 47 years.

Urbanisation has also been seen to contribute strongly to an economy's growth, and particularly so in China, which now has an urban population of 57% (it was only 30% in 1994, which is the same % as Myanmar's urban population today). Urbanisation has been shown to contribute to growth through 3 distinct phases (Kroeber, 2016):

1. "Magnet" phase as new factories spring up – workers move from farming to manufacturing which is a major cause of growth due to permanent productivity gains
2. "Building-binge" phase – growth of lower quality as it does not by itself create large productivity gains
3. "Smart City" phase – density of skilled workers and knowledge networks generate specialisation and productivity growth.

Myanmar is arguably only at the very outset of stage 1, and therefore the urbanisation engine for growth still has a long runway to enjoy. Urbanisation growth rates for Yangon are hard to predict but both JICA's 2.6% and the UN's 4% annually are very high (China urbanised at 3% CAGR between 1994 and 2016). Overall, 24m migrants over the next 50 years can be expected to come to Myanmar's cities, as the percentage of the population living in urban centres grows from 30% to 75%.

1.5 Trend vs Business Cycle Growth

When reviewing a country's economic growth, it is important to distinguish between long-term 'trend' growth and short-term business cycles. One way of looking at this is to estimate the long-term 'potential GDP' growth based on the economy's fundamentals (often using the Solow Growth Model above), and compare it to the actual current GDP growth. The difference between these two is called the 'Output Gap' and can be a sign of an economy with room to grow faster, or alternatively one which is growing too fast and 'overheating'.

The IMF has estimated Myanmar's potential GDP growth to be between 7-8%. Taking the mid-point of this range and plotting it against the actual GDP growth indicates that between 2012 - 2014 the economic growth was above trend and hence may have caused some overheating in the economy, leading to inflationary pressures. Subsequently however there has been an output gap with growth below trend, suggesting that there is spare capacity in the economy.

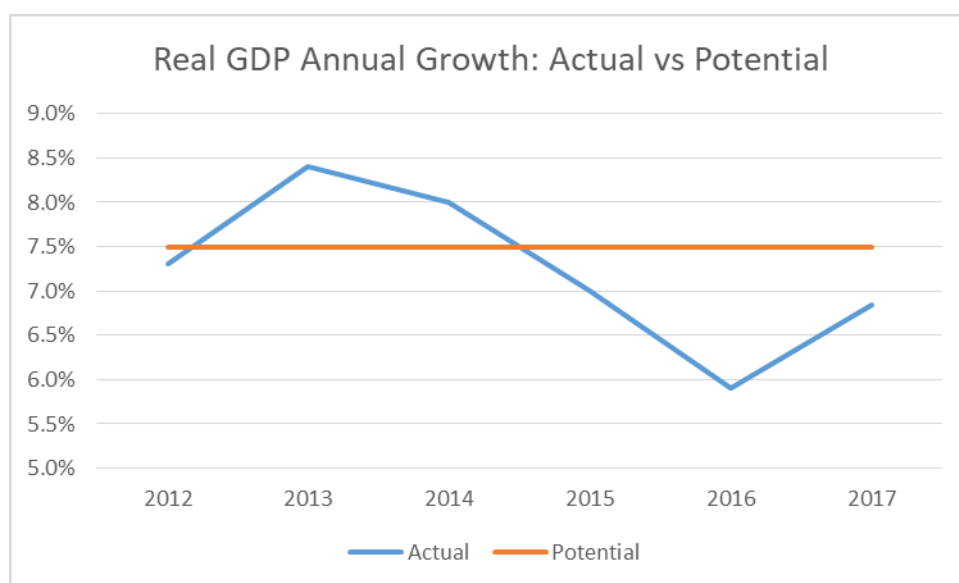


Figure 2: Myanmar Output Gap, Indicating Economic Cycles (World Bank, 2019)

Another indicator of the stage of the business cycle can be seen in the Manufacturing PMI Index, which is a monthly survey of business conditions in the manufacturing sector and is better as a short-term gauge of sentiment. After a downturn in 2018 (below 50 is seen as negative, whilst above 50 is positive), there has been a sustained period of improving business conditions.

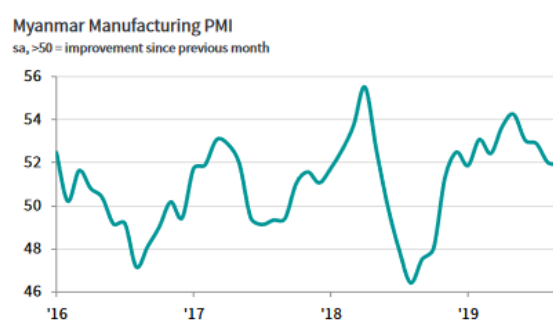


Figure 3: Myanmar Manufacturing PMI (Source: HIS Markit)

2.0 Are Fiscal and Monetary Policies sound?

2.1 Fiscal Policy

Fiscal policy (government spending and revenues) is particularly important in emerging economies. A fiscal deficit (the amount by which government expenditure exceeds revenues), otherwise known as a 'budget deficit', of around 4% should be sustainable in the medium term, so long as the economy is still growing (Caverley, 2017), and the IMF recommends that Myanmar keeps the deficit at around 4-4.5% in the medium term. For Myanmar, fiscal deficits have been on average 2.2% from 2012 – 2017, which has not been high enough to build up substantial government debt yet, with Debt-to-GDP ratios still in the safe zone (Table 5).

Table 5: Fiscal Indicators for Myanmar, 2012-2017

| Key Indicators | Explanation | Reasonable Level | Myanmar Actual (2015-2018) | | | | | | |
|-------------------------------------|--|------------------|----------------------------|-------|-------|-------|-------|-------|--------|
| | | | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
| Fiscal Deficit ("Budget Deficit") | The amount by which Government expenditures exceed revenues. (-ve is deficit) | >-4% | 1.6% | -1.4% | -1.1% | -4.3% | -2.6% | -5.7% | N/A |
| Debt-to-GDP | A sustained fiscal deficit will usually lead to a build up of government debt, leaving countries vulnerable to shocks. | <70% | N/A | N/A | N/A | N/A | N/A | 35.2% | 38.2% |
| Financing of Fiscal Deficit: | | | | | | | | | |
| CBM Financing | Unsustainable financing source | | N/A | N/A | N/A | 60.0% | 20.0% | 10.0% | N/A |
| T-Bills/T-Bond Auctions | More sustainable source (if managed correctly) | | N/A | N/A | N/A | 40.0% | 80.0% | 90.0% | 100.0% |

Sources: (ADB, 2018) (IMF, 2019) (World Bank, 2019)

It is also important to review how this fiscal deficit has been financed, which is also shown in Table 5. It can be seen that the government has successfully moved away from unsustainable funding from CBM, to issuance of T-Bills and T-Bonds. This is discussed further with regards to inflation in the Monetary Policy section below.

Although the above indicators look promising, in fact all is not well in Myanmar's fiscal sector. The World Bank reports that relatively low fiscal deficits are in fact due to budget execution problems – meaning that the target has been to spend more but the government has not had the capacity to spend appropriately. It is therefore expected that budget deficits will increase over the next few years, as execution capabilities improve. Furthermore, the government revenues are particularly low, at only 15% of GDP in 2017, with tax revenues only being around 6% (World Bank, 2019) (against Vietnam's 18% and Cambodia's 16% tax revenues) and non-tax revenue from State Owned Enterprises projected to further decline (IMF, 2019).

Much needed ongoing and planned infrastructure projects are large in size and therefore may create significant fiscal risks to the government (IMF, 2019). Myanmar will need to focus on improving revenue mobilisation (tax reform), introducing more PPP projects (via the new 'Project Bank'), and improving the efficiency of State Owned Enterprises.

2.2 Monetary Policy

The primary objective of Monetary Policy is, in most cases, to balance growth with the risk of inflation, through use of 'monetary tools' such as the short-term lending rate in the economy.

In Myanmar, monetary conditions are tight with the Central Bank Rate set at 10%, in an effort to control inflation. Recent auctions of government securities yield slightly less than this (see Figure 4), with interest rates of the shortest term 3-month T-Bills yielding just under 8%. This downward pressure on market rates is due to banks deleveraging (in response to recent macro-prudential regulations) and therefore showing an increased appetite for debt securities, as well as rates being suppressed by the government auction processes. However with this auction rate going through the floor on deposit interest rates (8.5%), this is impacting banks' profitability. Rates should be kept higher by stepping up the issuance (supply) of debt securities, as well as reducing the reliance on CBM financing (thereby instead issuing more debt).

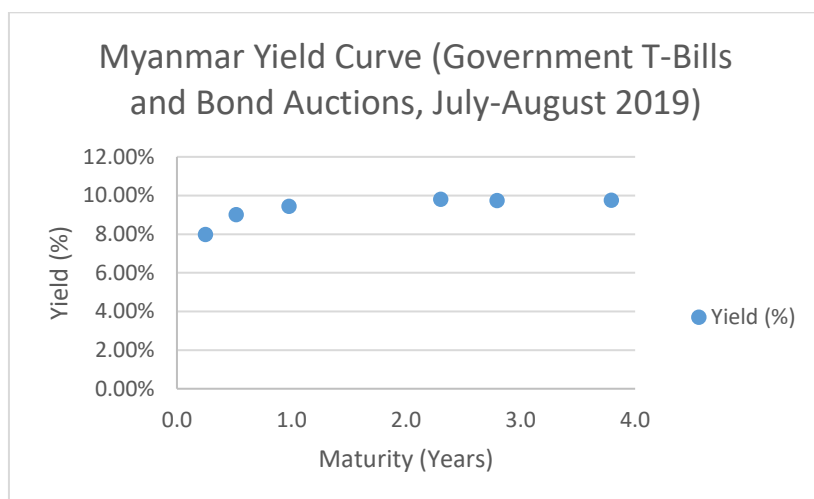


Figure 4: Myanmar Yield Curve, 2019

Inflation in Myanmar is persistent and has historically been driven by a number of factors namely; reserve money supply (causing around 30% of inflation), exchange rate pass-through (about 30% of inflation), food (around 5%) and gasoline prices (IMF, 2019). The remaining 35% of inflation is attributed to 'past inflation variations' (World Bank, 2017). Anecdotally, increases in labour costs have also been a driver of inflation, as the cost of new labour protection legislation has not yet been offset by increased productivity.

Table 6: Monetary Indicators for Myanmar, 2012-2018

| Key Indicators | Explanation | Reasonable Level | Myanmar Actual (2015-2018) | | | | | | |
|---------------------|---|--|----------------------------|-------|------|------|------|------|------|
| | | | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
| Headline Inflation | World bank | < 4% would generally be considered under control in an Emerging Market | 3.1% | 4.4% | 4.2% | 4.1% | 3.6% | 6.2% | 8.3% |
| Inflation | Year-on-Year (CSO) | | N/A | 4.6% | 6.2% | 8.3% | 7.8% | 5.2% | 6.1% |
| Core Inflation | Year-on-Year (CSO). Strips out volatile food and fuel prices. | | N/A | -0.7% | 4.2% | 4.2% | 3.1% | 4.3% | 6.4% |
| Money Supply Growth | M2 Broad Money supply | Should be in line with <i>nominal</i> GDP growth | 33% | 31% | 21% | 31% | 17% | 21% | 15% |

Source: (CSO, 2019) (World Bank, 2019)

Since 2016 however, it can be seen that money supply growth (M2) has reduced to be more in line with nominal GDP growth, likely reducing money supply's contribution to inflation. This has been achieved by both reducing the central bank financing of the fiscal deficit, as well as also moderating credit growth from 25.5% 2016 to 21.2% in 2017 (Oxford Business Group, 2019). The more recent bout of inflation in 2019 therefore is more likely due to the exchange rate pass-through (due to steep depreciation in 2018) as well as food price increases (due to flooding in 2018) and sudden increases in the rate of electricity in July 2019.

In 2019 and beyond, inflation is expected to gradually moderate to a range between 6 percent to 7 percent, consistent with its historical average, as the exchange rate has stabilised since November 2018, monetary financing of the deficit continues to be phased-out, and food and fuel prices moderate (IMF, 2019).

3.0 Is the currency competitive, and are external accounts under control?

To determine whether the currency is competitive (i.e. that it is not overvalued, making the country's exports less attractive), economists often look at the Real Effective Exchange Rate ("REER"). The REER is expressed either as an index (with 100 representing either the starting point of the time-series or the historical average, against which the current level can be compared) or as a 'REER Gap', with a positive REER Gap being an overvalued currency (e.g. if the REER Gap was +5%, it means the currency REER is 5% higher than that predicted by 'fundamentals and desirable policy settings').

Myanmar's REER Index has fluctuated over the past few years, dipping in early 2015 and then rising in early 2016 caused by high inflation in the economy (before the floating nominal exchange rate started to depreciate in late 2016, taking the REER Index down with it) (World Bank, 2017). The IMF appears to have difficulty estimating the REER Gap for Myanmar, with one method stating that the Myanmar Kyat (MMK) is currently overvalued by a large 25.7% (which the IMF states is not a reliable model for Myanmar), and another method suggesting that the MMK is undervalued by 3.3% (IMF, 2019).

Regardless of the current level of the currency, investors will be keen to gain insight into the likely future changes. Currency exchange rates are notoriously difficult to predict as they are reflective of a range of complex and often conflicting factors. Oxford Economics has however developed an 'FX Risk Tool' which calibrates the factors which historically have caused sharp depreciations in frontier economies with 'managed' exchange rates such as Myanmar.

The below table reflects the author's own qualitative assessment, based on the same factors as specified by Oxford Economics.

Table 7: FX Depreciation Risk Factors, in descending order of importance

| Indicator (in descending order of importance for managed FM currencies) | Myanmar Value | Risk Level | Interpretation |
|---|---------------|------------|---|
| Interest Rate Differential | 8.0% | High | Difference between US and Myanmar interest rates is very high, which indicates depreciation of MMK vs USD (at approximately 8%/year over the long term) |
| Inflation | 8.4% | High | High inflation rate indicates high risk of depreciation, as the currency loses purchasing power in the global market. |
| Reserves in months of imports coverage | 2.9 (2017) | High | Less than 3 months import coverage of reserves is an indicator of high risk of depreciation, since the Central Bank will not be able to defend the currency for long against sustained devaluation pressures. |
| Reserves to Short-term external debt ratio | 642% (2016) | Medium | Due to a low level of external indebtedness, even a small amount of reserves has reasonable coverage and therefore a devaluation is less likely to come from foreign debt pressures. |
| Real Effective Exchange Rate | N/A | | |
| Current account deficit (% of GDP) | 6.7% (2017) | Medium | A moderately high deficit is an indicator of medium-to-high risk of further depreciation. |
| Current account deficit net of FDI (% of GDP) | N/A | | |
| Fiscal Deficit (% of GDP) | 5.7% (2017) | | A low GDP shows economic weaknesses in the global economy and increases risk of depreciation. |
| GDP per capita (USD PPP) | 6161 (2017) | High | |
| NPLs (minus provisions, % of capital) | N/A | | |
| Short-term external debt to exports (%) | N/A | | |
| FX Regime | Managed | Medium | |

Sources: (Oxford Economics, 2019), Various

This analysis indicates that the currency is at relatively high risk of further depreciation in the short-to-medium term.

Additionally, of note is that the above table shows that the 'current account deficit' is only one of a number of issues when considering the likely direction of the FX rate. However, the current account balance does deserve further attention in this instance particularly as it may change significantly in the short-to-medium term, as the Myanmar economy undergoes major structural changes.

The 'Balance of Payments' formula provides:

$$\text{Current Account} + \text{Financial Account} + \text{Capital Account} = \text{zero (or equals change in FX reserves)}$$

If this change in FX reserves is negative, and there are not many reserves left, the currency is at risk of a sharp depreciation as demand for dollars outweighs demand for MMK.

It is also worth noting that a negative Current Account (i.e. in deficit), can essentially be ‘financed’ by the FDI inflows of the Financial Account. This avoids pressure on the currency to depreciate as demand for USDs and MMKs are roughly equal. Such ‘financing’ of the current account deficit by FDI inflows is generally considered better than the alternative (external debt) as it creates productive assets as a side-effect.

The table below reviews the Balance of Payments formula in vertical format for Myanmar. It shows that despite the current account deficit being fully funded by FDI inflows, and also that the overall balance showed a positive change in reserves (2015-2017), the currency has still depreciated. This is most likely due to the effects of the informal economy, which is not represented by these numbers (and by some estimates accounts for over 50% of the economy (Schneider, 2010)), where there is typically high demand for dollars.

Table 8: BOP Formula Vertically Tabulated for Myanmar, 2012-2018

| Key Indicators | Explanation | Reasonable Level | Myanmar Actual (2015-2018) | | | | | | |
|-------------------------------------|--|-------------------|----------------------------|------|------|-------|-------|-------|-------|
| | | | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
| OUTFLOWS: | | | | | | | | | |
| Current Account Balance as % of GDP | Deficit is negative. | <-4% long-term ok | N/A | N/A | N/A | -4.8% | -2.8% | -6.7% | -2.3% |
| + INFLOWS: | | | | | | | | | |
| FDI Inflows as % of GDP | The more that the Current Account deficit is financed by FDI (which generates productive assets) rather than debt, the more sustainable the deficit is likely to be. | | 2.2% | 3.7% | 3.3% | 6.8% | 5.2% | 6.0% | 1.8% |
| | However, this is also a risk that if FDI should dry up suddenly, it could leave the deficit underfunded and lead to a rapid depreciation of the currency. | | | | | | | | |
| Other Inflows | If the current account deficit is substantially funded by debt, then servicing debt may become difficult and currency depreciation/economic slowdown will likely follow. | | N/A | N/A | N/A | -1.9% | -1.7% | 1.2% | 1.1% |
| EQUALS CHANGE IN RESERVES: | | | | | | | | | |
| CHANGE IN RESERVES | If reserves are increasing, it means there is more demand for the currency, and the MMK should get stronger | | N/A | N/A | N/A | 0.1% | 0.7% | 0.4% | 0.6% |
| FX MMK/USD | The MMK has steadily decreased, despite the current account deficit being fully financed by FDI. This shows that current account balances are only one factor in determining FX rates. | | 641 | 934 | 984 | 1163 | 1235 | 1360 | 1430 |

Source: (CSO, 2019) (World Bank, 2019)

It will be interesting to keep a close eye on these accounts in the short term. Recent figures as of Q4 2019 show that imports have stayed flat whilst exports have continued to grow at almost 30% year-on-year. This could lead to the annual trade deficit (and therefore most of the current account deficit) reducing close to zero. This has likely contributed to the recent strengthening of the MMK to 1,508 at end November 2019. However, in 2020 there are other factors that could lead to an increasing deficit, including both a reduction in natural gas exports as well as a sharp increase in LPG imports required to power 3 of the 5 emergency power stations to be set up and online by mid-2020. This could place further short-term pressures on the MMK and increase its risk of depreciation. In the medium-to-long term, Myanmar should aim to grow its domestic manufacturing base to work its way to a steady current account surplus, as Thailand has managed to achieve relatively sustainably since 2006, and as Indonesia has been struggling to achieve since 2010.

4.0 Is external debt under control?

External debt refers to debt in foreign currencies, which is important to keep within reasonable limits in order to avoid heavy debt burdens that may impede future growth or even cause a debt crisis. Table 9 below shows that Myanmar’s level of external debt is currently within suggested limits, although it has been steadily growing and is starting to stray into the ‘ambiguous’ range (between 25% - 50% of GDP), with latest estimates of total external debt to GDP for FY2018 at 28.4% of GDP.

Table 9: External Debt Indicators for Myanmar, 2012-2017

| Key Indicators | Explanation | Reasonable Level | Myanmar Actual (2015-2018) | | | | | | |
|--|---|----------------------|----------------------------|-------|--------|--------|--------|-------|------|
| | | | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
| Total External Debt to GNI % | Measure of external debt (both private & public) burden | <50% or <25% ideally | 19.6% | 21.2% | 22.2% | 26.0% | 23.6% | 24.5% | N/A |
| Foreign Debt to Current Account receipts | Alternative measure of debt burden. | <200% | 100.7% | 98.7% | 124.4% | 124.2% | 107.1% | N/A | N/A |

Sources: (World Bank, 2019)

4.0 Is liquidity plentiful?

This has already been discussed to some extent as it is related to the government's ability to defend the currency. Foreign reserves have fallen to a level generally considered to be too low (IMF Staff estimate that 5-6 months of import coverage should be sufficient for Myanmar), and the government should aim to build these back by increasing exports and FDI, and transitioning to a policy of asymmetric FX intervention (meaning they should buy foreign currency during capital inflows, but then only sell when necessary to avoid disorderly market conditions) (IMF, 2019).

Table 10: Liquidity Indicators for Myanmar, 2012-2017

| Key Indicators | Explanation | Reasonable Level | Myanmar Actual (2015-2018) | | | | | | |
|---------------------------------------|---|-----------------------------|----------------------------|------|------|------|------|------|------|
| | | | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
| Foreign Reserves in months of imports | Traditional measure of liquidity, focusing on trade flows (recently, capital flows and debt flows have become more important) | > 3 months traditionally ok | 7.6 | 7.6 | 3.1 | 2.9 | 3.3 | 2.9 | N/A |
| Foreign Reserves / short-term debt | Newer measure of liquidity focusing on debt flows | >200% is safe | 714% | 959% | 600% | 576% | 642% | N/A | N/A |

Sources: (World Bank, 2019) (ADB, 2018)

5.0 Is the political situation supportive of required policies?

For example, is there sufficient leadership to be able to cut budget deficits when required, promote privatisation and end monopolies?

Although the new government of 2015 came under fire after the first 2 years of lackluster economic policy, recent reforms seem to be building momentum particularly since the release of the Myanmar Sustainable Development Plan ("MSDP") in 2018. Unlike the first 12-point economic plan, the MSDP is more detailed and action oriented, outlining 100s of reforms. The MSDP seems to be gaining real traction and some of the key legislation and actions since have included:

- Opening up foreign ownership to 35% in Myanmar companies & banks in 2018
- Retail & wholesale markets liberalisation in 2018, allowing 100% foreign ownership in large operations (e.g. with floor area > 929sqm)
- Insurance sector liberalisation in 2019 (after some years of delay), allowing 5 foreign insurers to set up fully owned operations, as well as 6 new JVs with local partners
- Since January 2019, the Central Bank has allowed banks to lend at up to 16% (previously limited to 13% secured) and without collateral
- 15-point CMEC (China Myanmar Economic Corridor) MOU signed as part of the Belt & Road Initiative in Sept 2018
- New range of 33 oil & gas blocks are to be tendered this year (the first since the 2014 tenders), despite the new Petroleum Bill not yet being passed (which inter alia transfers regulatory powers away from the SOE 'Myanmar Oil & Gas Enterprise' to the Ministry of Energy & Environment)
- Reducing the 'white money' income tax (on undisclosed income) to encourage formalisation of the informal economy, as well as to help promote real estate sector sales, Oct 2019

The overall effect of these reforms can be charted by looking at the OECD's FDI Restrictiveness Index. In 2013, Myanmar was over double the ASEAN average on the Index. By 2018 it had leapt ahead, to be not only less than the ASEAN average but also lower than the non-OECD average, and ahead of neighbouring countries including Laos, Vietnam, Thailand, China, Malaysia, and India.

Notably, the government recently enacted an unpopular, but extremely necessary, price hike in the rate of subsidized electricity. Even after this hike, government expenditure on electricity and energy tops the 2020 budget with a 23% allocation (Htwe, 2019). The willingness of the government to enact such necessary changes, particularly in the year before an election, is a positive sign that the government will take necessary actions for development in the future. Going forward, strong tax reform will be key to boosting government revenues, as well as ensuring fair and equitable profit-sharing arrangements on the new oil & gas concessions.

Finally, the international response to the situation in Rakhine will also play a key role in the country's future development, which may lead to an increased share of trade and investment from China. Successful management of the relationship with China therefore is likely to be a key socio-political issue in the coming years.

Conclusion

In underwriting an investment case, the strengths and weaknesses of Myanmar's economy based on key economic indicators can start to be established.

The economy has seen strong growth recently (7.2% CAGR, 2012-2017) overall, especially in Industry and Services, although Agriculture appears to have been somewhat left behind at only 2.1% (at a stage of development where other developing nations saw closer to 4% growth in Agriculture). However, the growth overall appears that it should continue in the long-term by 'East Asian style' rates of savings and investment (over 30% of GDP). In fact, there are a number of reasons to support potentially even higher savings-investment rates in the future, including: growth of the banking system; increased FDI; and an improving trade balance. Additionally, long runways to enjoy demographic dividends and urbanisation should further serve to sustain growth in the long-term.

Fiscal policy appears relatively sound with debt-to-GDP less than 40%, budget deficits generally below 4% of GDP, and with the deficits being financed now entirely by bond auctions (rather than Central Bank financing). However, poor revenue mobilisation and some of the lowest tax receipts ratios in the world may impede government spending unless corrected adequately. Monetary policy is responding appropriately to the circumstances, with a reduction in monetary financing of the deficit (and hence in money supply) helping to reduce the risk of high inflation as well as the concomitant increase in government bond financing raising short-term interest rates to keep monetary conditions tight and real interest rates positive.

The currency exchange rate is based on a managed floating system but shows a high risk of further sharp depreciation overall due to both high interest rate differential with the USD as well as high inflation, whilst the Central Bank has foreign reserves of less than 3 months' worth of imports with which to 'manage' the currency. The current account is also in deficit although has shown some recent improvements due to a narrowing trade balance, and may be able to turn to a surplus in the medium-to-long term as the export sector is grown.

Finally, despite some commentators believing that the new government took a while to get going, there seems to be real momentum growing in the reforms agenda. The government is also taking tough action such as reducing electricity subsidies even in the year preceding an election, which is a positive sign that they will do what is required to support long-term economic growth of the country. Macro-political risks continue to surround the situation in Rakhine however, which leads to uncertainty with regards to the response of the international community and future FDI flows.

Overall, from the perspective of the key economic indicators, the investment outlook appears positive for Myanmar. The key risks relate to inflation and currency depreciation, which may therefore need to be mitigated via hedging or focusing on the denomination of revenues where possible. However, with strong government policies (fiscal, monetary, and the reforms agenda) and a very strong outlook for long-term growth, a foreign investor should be well-placed to partake successfully in the growth of the Myanmar economy.

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