December 2016

Anchoring Economic Expectations









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MYANMAR ECONOMIC MONITOR

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The Myanmar Economic Monitor (MEM) periodically takes stock of economic developments and discusses economic prospects and policy priorities in Myanmar. The MEM draws on available data reported by the Government of Myanmar and additional information collected as part of the World Bank Group's regular economic monitoring and policy dialogue. The MEM team is very grateful to the Ministry of Planning and Finance, the Ministry of Commerce and the Central Bank of Myanmar for their excellent collaboration.

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Executive summary

- 1. The government has carefully navigated a difficult economic and security environment in its first six months in office. In early April 2016, the economy was still recovering from a flood induced supply shock, which, together with low commodity prices, contributed to widening current account and fiscal deficits. High inflation persisted over the course of H1 2016-2017. Investors have continued to bide their time, waiting for the government's economic policy agenda to settle. In response the government has taken steps to try and maintain fiscal prudence, which have helped ease pressure on monetary growth and import demand.
- 2. In parallel, the government continued the peace initiative begun in 2012, with a conference in August bringing together a broad range of ethnic armed organizations. Follow up talks have aimed to broaden the national ceasefire agreement signed in October 2015 to include those organizations that had not yet signed, and to advance the peace process from ceasefires into a national dialogue to resolve underlying grievances. Aimed at ending over 60 years of conflict with more than a dozen armed groups across the country, this is inevitably a long-term process. Intensified violence in Kachin, Shan and Rakhine States in late 2016 underlined the difficulties ahead, including with regard to religious tensions.

Recent economic developments

- 3. **Economic activity in Myanmar has slowed in 2016-2017**. Growth is expected to moderate from 7.3 percent in 2015-2016 to 6.5 percent in 2016-2017. The pace of recovery in agriculture from last year's floods was hampered by longstanding productivity constraints in the sector. Industrial output has also decelerated, including food processing, gas production, and construction activity. These developments underline the importance of policies to mitigate volatility and help prevent prolonged downturns, which are critical to sustaining inclusive growth and poverty reduction.
- 4. Falling exports and slowing foreign investment inflows have enhanced external vulnerabilities. These have contributed to an overall balance of payments deficit in 2015-2016 (-0.7 percent of GDP) and low foreign exchange reserves (2.5 months of imports at end March 2016). Falling exports were due to gas and agricultural commodities (60 percent of export basket), which led to the current account deficit widening from 3.3 percent of GDP in 2014-2015 to 4.8 percent in 2015-2016. There are no immediate concerns over external sustainability as an important share of the current account is financed from non-debt creating flows. Though fiscal and monetary policy discipline in the near-term and continued efforts to boost non-commodity exports over the medium to long-term will be essential to contain external vulnerabilities.
- 5. The government has faced increasingly constrained fiscal space due in part to external shocks, exchange rate pressures, and increased losses from State Enterprises. The public sector deficit in 2015-2016 nearly tripled to 3.2 percent of GDP from 1.1 percent in 2014-2015, and is expected to rise further to 4.5 percent of GDP in 2016-2017. The government adopted an amended budget in August, with efforts to cut spending whilst trying to protect priority areas such as education, health and agriculture. Capital spending cuts have borne a large share of fiscal adjustment efforts, which can help with short-term stability though could be detrimental to longer-term growth.

- 6. Inflation began to moderate in H2 2016 to 3.5 percent in October (year-on-year), though this is in part a base effect from the preceding period of high inflation.¹ Price pressures persisted throughout H1 2016-2017, and were in large part due to supply constraints linked to Cyclone Komen *relative to* demand pressures in the economy. Nevertheless, despite M2 growth moderating since its peak of 48 percent in 2012-2013, it remained high at 23 percent in 2015-2016 due in part to fiscal monetization of the deficit, thereby fueling demand pressures and underlying inflation.
- 7. **Rapid growth in credit to the private sector point to emerging banking sector risks.** Private sector credit grew at 34 percent in 2015-2016, compared to 36 percent in 2014-2015, and 53 percent the year before that. It is difficult to accurately assess the health of the banking system due to data constraints. However, emerging signs of risks include growing sector and borrower concentration of lending.

Economic outlook

- 8. Economic growth is projected to average of 7.1 percent per year over the next three years. Private and public investment in infrastructure services (power, transportation, communications) are expected to accelerate in the near term. There has also been a significant accumulation of foreign investment commitments in non-commodity sectors including agri-business, light manufacturing, and hospitality. Implementation of these investment projects is expected to pick up subject to continued macroeconomic stability, progress on structural reforms and expansion of critical services.
- 9. Inflationary pressures are expected to ease relative to 2015-2016, averaging 8.9 percent over the course of 2016-2017. This is due to the general slowdown in aggregate demand and efforts to reduce fiscal monetization. There are, however, risks particularly due to the pace of monetary expansion resulting from growth in credit to the private sector and a gradual uptick in capital inflows. International commodity prices are also expected to rise over the course of 2017.
- 10. The current account deficit is projected to expand further over the medium-term. This is due to a combination of slowing gas exports, slowing demand in China, and large investment-related import needs. However, strong FDI flows are projected to remain a stable source of financing for the overall balance of payments, and its deficit should thus moderate in 2016-2017.
- 11. **Despite the relatively favorable outlook, there are several macroeconomic risks**. Low gas prices could increase fiscal and external imbalances, and exacerbate financing pressures. Myanmar's relatively narrow production base, relative dependence on primary commodities, and vulnerability to natural disasters pose risks to stable growth. Lack of clarity or delays in policy implementation could prolong economic slowdown. And a more challenging external environment may make it more difficult for Myanmar to take advantage of new export markets.

¹ The decline in inflation was also linked to a recalculation of the inflation index to better reflect the current consumption basket.

Policy priorities

- 12. Going forward, an overarching priority for the new administration could be to further strengthen the clarity, communication and credibility of economic policies. One option could be to release an economic vision, the foundations of which have been set out in the NLD's election manifesto and 12 policy objectives. Complementing this vision with regular reporting on near term economic policies and conditions could help anchor economic expectations and sustain investor confidence.
- 13. In this regard, the government's Medium-Term Fiscal Framework (MTFF) could help set out a strategy for balancing fiscal prudence with the need to expand public services in the coming years. This could be underpinned by a fiscal deficit to GDP target of below 5 percent (based on the IMF Government Finance Statistics method) with gradual consolidation over the medium-term to maintain fiscal sustainability. Complementing the deficit target with a statement on revenue (e.g. Tax Administration Procedures Law, Self-Assessment across Medium Taxpayer Offices) and expenditure measures (e.g. reallocation from low to high priority sectors, consolidation of capital investments) would provide a clear signal of fiscal policy priorities and targets.
- 14. In addition to the MTFF, a borrowing strategy could help set a path for moving away from inflationary financing and align borrowing more closely with long-term investment needs. Ongoing efforts to expand the domestic debt market and reduce monetization, can support monetary independence and counter-cyclical fiscal policies. This could be supported in the near term by accepting higher interest rates at Treasury Bill auctions. At the same time, making the most of Myanmar's access to long-term external concessional financing could be critical for long-term investments. This may be particularly important given that Myanmar is likely to graduate from access to concessional finance in the next 5-10 years.
- 15. Greater fiscal discipline and the expansion of the government securities' market are expected to reduce pressures on monetary policy. There will however also be increased liquidity from foreign capital inflows and growing deposits in the commercial banking sector. This will require scaled up Central Bank deposit auctions to help tighten liquidity conditions, and contain inflationary pressures.
- 16. Monetary discipline and exchange rate flexibility are important for alleviating external pressures. Monetary expansion has impacted on the trade and current account deficits, as illustrated by the relative resilience in the import of consumer items. This has added to currency pressures and contributed to imported inflation. At the same time, it is important to maintain exchange rate flexibility by allowing the reference rate to adjust to market conditions through the foreign exchange auctions. Whilst the reference rate has adjusted, it has done so more recently with a lag, which may hamper the development of the formal market.
- 17. As monetary policy capacity develops, the CBM policy rate could play a bigger role in managing inflation, and mitigating financial sector risks. This would warrant a review of the policy on administratively fixed interest rates. The authorities could consider a phased relaxation of interest rate caps. This could be partial to encourage medium- and long-term deposits (i.e. interest rate caps could be maintained for short-term deposit rates), which would provide the basis for longer-term commercial loans.

18. In the near term, implementation of the new Financial Institutions Law (2016) through issuance of prudential regulations could be critical for financial sector stability. These include regulations on capital governance, acquisition of substantial interest, large exposure, loan classification and provisioning. They could help further empower supervisors to implement the Financial Institutions Law, and provide a stronger basis for regular reporting on Financial Sector Soundness Indicators. Without this it will be difficult to gauge the real health of the banking system, which in turn can distort economic expectations.

Special topics

Firm survival and employment in a period of high growth in Myanmar

19. Increased private sector growth and competition in Myanmar affect firms' ability to survive, enter, and expand in increasingly dynamic markets. An ongoing update to the World Bank's 2014 Enterprise Survey (ES) points to high rates of firm exit in Myanmar over the past two years, with around 17% of firms ceasing operations annually. This may not be a bad sign if exit reflects underlying reallocation of resources to more productive and innovative firms. Over 80 percent of exits are either micro or small enterprises, which tend to be less productive than larger enterprises. Surviving firms tend to be larger, less likely to be credit constrained, and tend to have more experienced managers. The net job creation from firm entry, expansion and exit was around 13 percent. The high rates of firm exit underline the importance of continued efforts to improve the business environment, particularly access to credit, and maintain macroeconomic stability.

Selected issues and policy options for managing informal border trade

20. Policy makers and domestic industry have expressed growing concerns over informal crossborder trade (ICBT) between Myanmar and its neighbors. Concerns include the poor quality of products entering Myanmar, loss of government revenue, and unfair competition for domestic producers. At the same time ICBT is an important source of livelihoods, and involves a complex network of actors. Mirror trade data suggests that imports may be underreported by up to between 40 and 60 percent of actual imports into Myanmar. Despite the merits of bringing all traders into the formal sphere, the complexity of ICBT warrants careful management. Policy options could include: simplification of border trade processes; adopting a "charter for cross-border traders" that helps build greater trust between officials and traders; promoting consumer awareness; and enhanced surveillance capacity of border management agencies.

Protecting priority public spending from gas revenue volatility

21. Gas receipts account for an important share of Union Budget revenues though are subject to volatility, which complicates expenditure planning. Gas revenues are conservatively estimated at an average of 2 percent of GDP per year, or between 15 and 20 percent of Union Government revenues. Data from the last three fiscal years suggest a consistent overestimation of gas receipts in the Union Budget. Optimistic forecasts can create unfunded commitments that require budget adjustments (conversely, revenue windfalls can spur unsustainable spending). To protect expenditures from gas revenue volatility, the government could consider: integrating gas revenue forecasts in its Medium-Term Fiscal Framework; and adopting fiscal benchmarks to help stabilize spending over the resource cycle.

Recent economic developments

Economic growth

- 1. **Economic activity in Myanmar has slowed down in the last year**. Growth has moderated from 8 percent in 2014-2015 to 7.3 percent in 2015-2016, and is projected to slow further to 6.5 percent in 2016-2017. Consumption demand has decelerated due to high inflation, which, in addition to ongoing structural constraints, exchange rate volatility and a perceived lack of clarity in economic policies, has dampened new investment flows. Agriculture output is only partially recovering from the effects of Cyclone Komen in the summer of 2015, which has partly contributed to the general slowdown in industrial activity.
- 2. Recent developments highlight Myanmar's vulnerability to volatility in output growth due to a combination of structural and policy constraints. A narrow production base, increased exposure to competition, relative dependence on primary commodities, and vulnerability to natural disasters pose risks to stable growth. Those risks are exacerbated by policy and institutional capacity constraints to deal with Myanmar's growing exposure to economic vulnerabilities. Policies to mitigate short-term volatility, and in particular help prevent prolonged downturns, are important for sustaining inclusive growth and poverty reduction.

Slow recovery in agriculture

- 3. The agriculture sector in Myanmar, which accounts for around 29 percent of value added, is gradually recovering from last year's floods. It is projected to grow at over 4 percent in 2016-2017, compared to 3 percent in 2015-2016. Crop production (72 percent of agricultural output) across the three main groups (paddy; beans and pulses; oilseed crops) has started to pick up, as has the production of livestock and fisheries, though the forestry sector is expected to contract by 1 percent.
- 4. Longstanding productivity constraints in the crop sector negatively affect the pace of recovery from supply shocks. Paddy production in 2016-2017 is expected to only partially offset the drop in output in 2015-2016. Paddy output suffered the most from last year's floods and has also experienced volatile growth in recent years (Table 1). Productivity constraints for paddy stem largely from an insufficient supply of good seeds; fertilizer prices rising more quickly than paddy prices coupled with a lack of farmer knowledge on soil nutrient management; and the slow pace of mechanization outside of several commercial rice producing areas.

Table 1: Myanmar paddy harvest area and production								
	2013/14	2014/15	2015/16	2016/17 (forecast)				
Harvested area, '000 ha	7,050	7,030	6,900	7,000				
Paddy production, '000 tons	18,683	19,688	19,063	19,531				
Production (% change)	2.1	5.4	-3.2	2.5				

Source: US Department of Agriculture

5. High prices and strong demand for rice from China in the first two quarters of 2016-2017 were not sufficient to offset productivity challenges in the paddy sector.² Many farmers reportedly opted to produce beans and pulses in the pre-monsoon season in June-July 2016, delaying the planting of monsoon paddy. This shift was also driven by the steady increase in the price of beans and pulses thanks to robust demand from India and China, and growing demand from new markets in Japan, Korea, EU and the US. Beans and pulses account for 28 percent of total sown area and 64 percent of value added in crops. The main planting season for beans and pulses is between October and January, with harvest between February and May. The output of beans and pulses is projected to grow from 2.3 percent in 2015-2016 compared to 5 percent in 2016-2017 (Table 2).

Table 2. Wyannar bears and puises production								
	2013-14	2014-15	2015-16	2016-17				
				(Torecast)				
Production, '000 tons	2,674	2,705	2,767	2,905				
Black gram (Matpe)	1,076	1,080	1,110	1,555				
Green gram (Pedesein)	992	1,050	1,080	1,134				
Pigeon peas (Pesingon)	579	575	587	616				
Change from the last year, %	3.6	2.2	2.3	5.0				
Exports, '000 tons (annual, FOB)	1,301	1,156	951	n/a				
Pigeon peas (Pesingon) Change from the last year, % Exports, '000 tons (annual, FOB)	579 3.6 1,301	575 2.2 1,156	587 2.3 951	616 5.0 n/a				

Table 2: Myanmar beans and nulses production

Source: WB Staff estimates, MOALI, MOC, and SGC

- 6. Private investment in agriculture and agro-processing have started to pick up. This includes investments in fertilizer manufacturing and seeds, both of which have posed longstanding constraints to crop production. There is also increased investment in the production of animal feed, which could be important for the future growth prospects of the livestock and fisheries sectors. The latter are affected by low quality and adulterated feed. A number of fish processors are already benefiting from the better quality supply, including through accreditation for export to the European Union.
- 7. The new Investment Law (2016) has introduced important reforms that could further help catalyze domestic and foreign private investment. One such important reform is the relaxation of the overly restrictive requirement that all Foreign Direct Investments or Joint Ventures (JV) have to be greenfield (i.e. new processing plant, which can take up to 2 years to start). The Investment Law now allows for brownfield investment (FDI JV with existing plant with intent to upgrade or build additional processing capacity), or a JV involving a combination of brownfield and greenfield investments in selected sectors. The Law will become effective in April 2017, and swift adoption of by-laws and related regulations could help spur private investment.

² Rice prices have fallen in the second part of 2016, partially due to the seasonal factors and partially due to China's decision to limit cross-border trade, see Box 1.

Box 1: Managing rice price volatility

Declining rice prices: The recent sharp drop in rice prices (Figure 1) has prompted some to suggest that government should impose a minimum price on paddy. The average wholesale price in Yangon dropped from 550,000 Kyats/ton (\$466/ton) in June 2016 to 328,000 Kyats/ton (\$257/ton) in October 2016.

Factors behind the drop include: (i) seasonality, as the new harvest enters the market; (ii) declining global prices, with all major rice exporters having experienced good harvest in 2016 (Figure 2); (iii) steep climb ahead of the recent correction, due to last year's supply shock and the depreciation of the US dollar. Another factor is that since September, China has closed the cross-border trade route for Myanmar rice to prevent informal rice imports.



Source: WB staff using the data from FAO GIEWS

Minimum prices on paddy: Adopting a minimum price for paddy is not a good solution. If the minimum price is above international market prices, Myanmar will not be able to compete in the export market. In the domestic market, this would hurt consumers and also rice millers, who are already reluctant to purchase paddy given the drop in demand from China. With fiscal constraints, the government would not purchase the excess supply, which would need to be stored, and therefore creates additional costs.

Alternative near term options: (i) the government could accelerate the procurement of rice for institutional needs (e.g. military, prisons), which can also accommodate storage requirements; (ii) take advantage of lower prices by helping traders export through the Yangon port; (iii) proactively engage with large buyers, particularly in Africa, who have steadily increased rice imports from Myanmar in recent years; (iv) negotiate with the Chinese authorities to restart border trade.

Long-run options: Seasonal increases and declines of prices can be smoothed by: (i) more effective use of water and irrigation; (ii) supply of better seeds with different durations; (iii) incentives for rice mills to invest in better storage and drying facilities; (iv) adoption of international standards for rice; (v) collection and timely provision of accurate information on market and commodity balance development; and (vi) removal of any non-tariff barriers for exports.

Some price volatility is however also unavoidable and desirable. They are a common feature of wellfunctioning agricultural markets, since output varies due to factors such as weather, pests and disease, and because demand and supply are inelastic in the short run. Moreover, they signal scarcity in the market and facilitate a supply response, foster arbitrage between surplus and deficit regions, as well as guide postharvest handling, storage and trade decisions.

Slowdown in industrial output

- 8. The slow recovery in agriculture has had negative spillover effects on the food processing industry, which accounts for an important share of manufacturing and industrial output. Food processing (e.g. rice milling, edible oils, snacks) accounts for around two thirds of manufacturing output, which in turn accounts for around three quarters of total industrial output. Whilst manufacturing is traditionally one of the more stable sources of growth, the dominance of the food processing industry in Myanmar makes it vulnerable to agricultural supply and price developments. Additional vulnerability comes from the relatively high dependence of the sector on imported inputs, and therefore from exchange rate volatility. The industry is also finding it increasingly difficult to compete against cheaper and better quality imports of processed foods.
- 9. The downturn in manufacturing is reflected in results from the recently launched Purchasing Managers' Index (PMI) surveys (Box 2).³ Myanmar's overall PMI score began to decline in June 2016 (Figure 3), though contraction in manufacturing output has been more or less sustained between February and October 2016 (Figure 4). Demand, as reflected by new orders, did not fall as quickly as output, and only began to decline in June (Figure 5), together with a sharp drop in the quantity of purchases. This suggests that the contraction in manufacturing output in 2016 was likely precipitated at first by supply side factors in the early part of calendar year, particularly in agriculture as discussed above.

Box 2: IHS Markit and Nikkei Purchasing Managers' Index for Myanmar

The IHS Markit and Nikkei PMI is a composite indicator of manufacturing performance. It is based on a monthly survey of 400 companies, launched in Myanmar in late 2015.

The PMI for Myanmar has 10 sub-indicators: new orders, output, employment, quantity of purchases, stocks of purchase, suppliers' delivery time, input costs, output prices, backlog of work, and stocks of finished goods.

Performance is assessed based on results relative to a threshold of 50: > 50 = increase over last month; < 50 = decrease; 50 = no change.

Source: IHS Markit and Nikkei



³ IHS Markit and Nikkei: <u>https://www.markiteconomics.com</u>; <u>http://asia.nikkei.com</u>. PMI surveys are conducted in over 30 countries and enable monthly monitoring of business conditions (Box 2). In Myanmar, the PMI covers manufacturing, which accounts for nearly 75 percent of industrial output.



Source: IHS Markit and Nikkei

10. The slowdown in industrial output in H1 2016-2017 was not limited to manufacturing alone and has been fairly broad-based. Growth in industrial output is projected to slow from 8.7 percent in 2015-2016 to 4.3 percent in 2016-2017. Some slowdown was expected on account of declining gas production, which accounts for around 8 percent of GDP or around 28 percent of industrial output. Gas production in H1 2016 was close to 30 percent lower compared to the same period last year (Figure 6), and continued to decline in Q2 2016-2017 (see section on trade and investment).



Source: CSO, WB Staff estimates

11. Construction activity, which has experienced a general slowdown in 2015-2016, decelerated further in H1 2016-2017. Construction accounts for around 5.2 percent of GDP or around 18 percent of industrial output. The earlier easing of construction activity was linked to slowing demand in the residential market. Although there was some shift towards commercial properties, even this has decelerated. Then in May 2016, the Yangon City Development Corporation suspended the construction of around 200 high rise building projects. This was prompted by concerns over projects starting without the necessary permits and violation of building standards.

- 12. Shocks to construction activity have important spillover effects in the economy. Construction is an important source of employment (Box 3), therefore any uncertainty or delay in decision-making can (and has) lead (led) to retrenchments. Around 30 percent of outstanding credit from the banking sector is for construction and real estate, therefore any suspension affects banking sector risks. At the same time, since most construction is pre-financed by clients, the latter may be subjected to higher costs resulting from delays. Changes in construction activity affects a wide network of suppliers, which further exacerbates volatility in growth.
- 13. Improving regulations in the construction sector, and ensuring that these are enforced, is critical though needs to be managed carefully. Better regulations could improve urban planning, the quality of construction, environmental sustainability, and the welfare of urban dwellers. Ensuring a phased approach that is predictable and transparent is critical to avoid big shocks, which may be difficult for the economy to recover from given the importance of the construction sector.

Box 3: Labor market participation in Myanmar

Myanmar had a labor force of 22.7 million workers aged 15 and above, according to the Census conducted in 2014. Labor force participation rates of the working age population (15 and older) were 63 percent in Myanmar in 2015, close to the average of 64 percent seen in South East Asia (WDR, 2016). Labor force participation rates vary across the course of the year, reflecting seasonality in demand in agricultural activities and construction.

The agriculture sector is home to the majority of Myanmar's workers. 56 percent of labor market participants self-identified in the Census as primary sector workers in agriculture, forestry, fisheries or mining. A further 12 percent of workers were employed in the secondary sector, of which 7 percent are found in manufacturing activities and nearly 5 percent in construction. Finally, tertiary employment accounts for 32 percent of workers. The share of the population working in agriculture, industry and services did not change substantially between 2009/10 and 2014 – reflecting limited reallocation of labor to higher productivity sectors.⁴

Labor force participation for both men and women rises sharply from near zero before age 12, around the end of primary school, to near peak at age 18, just after the end of high-school. The rise in participation seen during this time is led by rural workers, who have substantially higher rates of school dropout during middle and high school.

Participation tails off relatively early, with reductions in participation clearly visible from 55. The reduction in participation is also accompanied by an increase in the fraction of the population who report suffering from illness and disability. Ill-health is not only an impediment to the participation older workers, but affects younger workers as well: it is estimated that Myanmar lost 4% of work days, or 3 million days of work, due to ill-health among the population aged 15 to 64.

⁴ The 2009/10 shares are drawn from the Integrated Household Living Conditions Survey, which collects data on a sample of the population. The 2014 shares are drawn from the population Census, which was carried out between 29th March and 10th April 2014.



There is a substantial gap in labor force participation across men and women, similar to patterns seen across the world (Figure 9). Annual employment participation is 59 percent for women aged 15 and over, compared to 84 percent for men. Lower participation rates reflect in part a trade-off between household and market work: being the primary caregiver for children typically reduces the amount of time that women can devote to labor market activities, and also impacts the type of labor market activity that they can be involved in.

Women's labor force participation rate in Myanmar is similar to other countries at comparable levels of income (Figure 10). As countries develop, female labor force participation displays a U-shaped trajectory. In poorer, agricultural economies, female participation tends to be high because agricultural work and family responsibilities can easily be combined. However, in middle-income countries dominated by the manufacturing and service sectors, female participation declines. Female participation rates are higher in high-income countries that have large service sectors and a highly educated workforce.

Sources: The World Bank, Myanmar Poverty and Living Conditions Survey (2015); GOM Population and Housing Census

Foreign trade and investment

- 14. **Myanmar's current account deficit continued to widen in 2015-2016**. Current account deficits averaged 4 percent of GDP per year between 2012-2013 and 2014-2015, and rose to an estimated 4.8 percent in 2015-2016. Although exports picked up rapidly in 2013-2014 thanks to the gas sector, foreign investment related imports grew more quickly up to 2014-2015. Services (tourism, transport, and fees) and transfers (official and private donations) posted surpluses in more recent years, which to some extent helped to contain external pressures.
- 15. In the last year and a half, falling exports and slowing foreign investment inflows have enhanced external vulnerabilities. A combination of these has contributed to an overall balance of payments deficit in 2015-2016 together with falling foreign exchange reserves, which in March 2016 were estimated at around 2.5 months of imports (approximately US\$4.5 billion) (Table 3). There are no immediate concerns over external sustainability, as an important share of the current account is financed from non-debt creating flows and largely going to productive foreign investments. Nonetheless, fiscal and monetary policy discipline in the near-term (see sections below) and continued productivity enhancing reforms to boost non-commodity exports over the medium to long-term will be essential to contain external vulnerabilities.

	2013/14	2014/15	2015/16	2016/17
Current account balance	-4.9	-3.3	-4.8	-6.5
Trade balance	-5.1	-6.3	-8.6	-10.2
Financial account	7.4	7.1	6.6	6.5
FDI (net)	4.4	7.1	6.6	5.9
Overall balance	2.0	1.8	-0.7	-0.3
CBM Reserves (months of imports)	2.5	2.7	2.5	2.3

Table 3: Balance of payments (% of GDP)

Sources: CBM, IMF BOP Statistics, WB Staff estimates

Falling commodity exports

16. **Myanmar's trade deficit has remained large due to declining exports.** The trade deficit in H1 2016-2017 was estimated at US\$1.7 billion, compared to US\$2.3 billion over the same period last year (Figure 11). The declining deficit is partly due to falling imports (Figure 12), in line with the general slowdown in investment demand. The import of petroleum products declined by 11 percent in H1 2016-17 compared to the same period last year due to lower prices and moderating industrial demand. Imports of construction related materials also experienced a decline in 2016. Surprisingly, the import of consumer goods resisted well throughout the year.



Sources: MOC, WB Staff estimates

17. Falling exports were mainly due to gas and agricultural commodities, which account for over 60 percent of Myanmar's merchandise export basket. The dependence on primary commodities exacerbates vulnerabilities to supply and price shocks, which are less prevalent in non-commodity sectors. This is evident in the value of Myanmar's industrial exports, which track closely the volume of exports (Figure 13). For gas and agricultural commodities on the other hand, despite the relatively stable volume of exports, the value diverged due to declining prices. Gas exports dropped by 37 percent in H1 2016-2017 relative to the same period last year. The impact of declining commodity prices was exacerbated by a 31 percent decline in the volume of gas exports in H1 2016-2017 relative to the same period last year.



18. The garments sector is slowly emerging as a potential source for non-commodity export growth. Despite a fairly stagnant share of total exports (Figure 15), in H1 2016-2017 the value and volume of garments' exports increased by 120 percent and 174 percent respectively compared to the same period last year, reflecting increased production from new facilities and growing orders from external buyers. The big increases, however, were from a low base. At less than 10 percent of total merchandise exports (Figure 15), the uptick in garments was not sufficient to offset declining exports of primary commodities (Figure 16).



Sources: MOC, WB Staff estimates

19. A sharp increase in re-exports in H1 2016-2017 overinflates actual export performance. Re-exports are foreign goods that are exported as they were imported. Although they contribute to transportation, distribution, and other trade-related services, there is no production or processing-related value addition. Without re-exports, the evolution total exports would have been flat at best (Figure 16). Re-exports in H1 2016 accounted for 15% of total exports in Q1-Q3 2016

Growing foreign investment in non-commodity sectors

20. The past 2 years have seen growing foreign investment commitments in non-commodity sectors. Whilst the oil and gas sector accounts for around one third of total FDI approvals (Kyat 67 trillion), followed by 30 percent in the power sector, the biggest increase in commitments have been in the manufacturing sector and the transport and communications sector. Between June 2014 and November 2016, FDI commitments to these two sectors increased by 77 percent and 275 percent respectively (Figure 17). As of November 2016, China accounted for around 28 percent of approved investments, followed by Singapore (23 percent), and Thailand (Figure 18).



Sources: WDI, IMF BOP Statistics, WB Staff estimates

21. Foreign investment flows to Myanmar have been an important source of new capital, technology and knowledge. They can help diversify Myanmar's export basket and enable production of more sophisticated goods (Box 4), which are critical to building external resilience. Net FDI to Myanmar in the past 5 years has averaged around 4 percent of GDP per year, compared to 2 percent in the previous 5 years (Figure 19). FDI flows to Vietnam in the early 1990s and Cambodia in the late 1990s when both economies were opening up, averaged around 5.7 percent of GDP (Figure 19). Sustaining foreign investment flows therefore will require continued progress on productivity enhancing reforms.

Box 4: Economic complexity of Myanmar's exports⁵

The economic complexity approach provides an indication of the level of sophistication of a country's export basket. The progressive accumulation of "capacities" or "know-hows" allows a country to shift from simple to more complex goods. Export complexity as a result can have a positive impact on income and growth.

There are two dimensions to economic complexity. The first relates to the diversity of a country's export basket (Revealed Comparative Advantage, RCA). Countries with more diversity are assumed to have more productive capabilities. The second dimension is ubiquity: a product that is exported by many countries is likely to be similar than a product that very few countries can make.

Complexity indices are derived from these two dimensions through an iterative process. A country with few exports (low diversity), which are also produced by many other countries (high ubiquity) will have a lower complexity index; a country with many exports (high diversity) produced by few countries (low ubiquity), will have a high index⁶.



Figure 20: Diversity of exports – number of product lines with RCA > 1

Source: Atlas of Economic Complexity, World Bank calculations

In terms of diversity, Myanmar has a comparative advantage in 97 products (using a HS92 classification), which is lower than most countries in developing Asia, though slightly above Mongolia, Cambodia and Laos. Myanmar also experienced an increase in diversity over the past two decades.

However, the products in which those specializations exist have low complexity, namely gas, precious gems, wood, and vegetable products. Figure 20 shows that among the distribution of product complexity indices, exports from Myanmar are concentrated in the lower tail, at about 15% of the total distribution.

Countries in Developing Asia often have a less concentrated product mix and while they remain in the left part of the distribution, some of their products reach the 'more complex' part. Figure 22 gives the example of Cambodia as a comparison, which has both a more diverse basket and some specializations in more complex products.

Data on Myanmar since 2009 indicate a decline in overall economic complexity. This may be due to the dominance of the gas sector, which may be masking the positive story in the garments sector.

⁵ Hausmann, R et al. "The Atlas of Economic Complexity," (2011)

⁶ This can be iterated infinitely, by giving a value to countries which export products which are exported by countries with a large diversity, etc. In the end, the economic complexity is the result of this infinite iteration, which is technically equivalent to the eigenvalue of the export matrix. See Hausmann et al. for a full characterization



Source: Atlas of Economic Complexity, World Bank calculations

The Atlas of Economic Complexity (Figure 23) provides a convenient way to visualize the product space: each node is a product, and those that are highlighted are those where Myanmar is specialized. The proximity of nodes denote the similarity of products. This shows that Myanmar is specialized in a few, relatively simple products. They are also relatively dispersed highlighting little common capacity. However, the Atlas also confirms the importance of the textile/garment industry (in green), which is central in the product space: it usually allows to "learn" new capacities in other product lines.

Other potentially beneficial sectors are those connected to existing specialization (which means that "jumping" to those new product lines is relatively easier) and at the same time connected to dense nodes, which will allow to jump to new lines in the future. Here, it seems that there is a very strong specialization in rough wood products (HS92 = 4403, RCA = 72, but low complexity at -1.7), which could lead to a specialization towards higher complexity products such as carpentry.

In conclusion, achieving greater economic complexity will entail greater specialialization, including in areas that are strongly related to the development of other capacities. Progressively building capacities to export more complex products, such as garments, wood products, or transformed agricultural items, can improve Myanmar's complexity ranking and contribute to growth and structural transformation.



Figure 23: Atlas of Economic Complexity

Sources: Atlas of Economic Complexity, MIT Media Lab

Box 5: Lifting of US Economic Sanctions⁷

The United States in October 2016 lifted economic sanctions on Myanmar, which had been in place since 1997. This led to: (i) the lifting of the Jade Act, thereby allowing the import of jadeite; (ii) the removal of individual and entities from the sanctions list that US companies could not engage with; (iii) renewed access to the Generalized System of Preferences (GSP), which allows developing countries to export about 5000 products duty-free; and (iv) a reduction in the regulatory burden for US banks to do business in Myanmar.

The most direct impact is likely to be reduced transaction costs for US investors. The list of designated persons with which US nationals could not conduct business included military held companies and major business entities (US Chamber of Commerce, 2016). Beyond the direct prohibitions, the obligation on a US business to verify that their partners were not related to designated individuals or entities made the cost of diligence almost prohibitive, even after the most stringent conditions were lifted in 2012.

Lifting sanctions should make it easier for banks to execute payments and trans-border financial transfers, which could have positive implications for investment and trade, although complementary reforms will be needed to see a large effect on the business environment.

Myanmar's renewed access under the GSP system could help open up new market opportunities. These are likely to be small in the short run, particularly given that the US is currently not a major trading partner: with \$142 million, the US accounted for around 1.1% of Myanmar's total exports in 2015. However, this could have an effect on several goods covered under the GSP.

Large fixed costs to trade and investment means that it could take some time for major US companies to establish relationships and discover opportunities in the country. But over time, lifting the sanctions provides an incentive to invest and trade. In the same way that the economic effects of non-multilateral sanctions are considered to be limited (see Hufbauer et al., 2009), because they lead sanctioned countries to shift their trading relationships to other countries, we can expect that lifting the sanctions will lead to a rebalancing of the US's economic role in Myanmar.



Figure 24: Trade with the US and the EU (1995 - 2015)

⁷ Hufbauer, Gary, Jeff Schott and Kimberly Elliott (2009), *Economic Sanctions Reconsidered*, PIIE Editions, 3rd ed; Martin, Michael F. (2013), "U.S. Sanctions on Burma: Issues for the 113th Congress," *Congressional Research Service Report, 7-5700;* US Chamber of Commerce (2016), "US-Myanmar Commercial Relations: The Next Phase", Report (June)

Monetary, financial sector and exchange rate

Moderating inflation

22. Inflation in Myanmar remained elevated throughout H1 2016, and although there are signs that it is moderating, this is also in large part a base effect. While inflation had declined from its peak of 16 percent in October 2015 (yoy), it remained high with July's inflation at 10 percent (Figure 25). Since then, and based on a recalculation of the inflation index to better reflect the current consumption basket (Box 6), inflation has started to moderate (Figure 26). Average monthly inflation in Q2 2016-2017 is estimated at 0.3 percent compared to 2.1 percent monthly average in the same period last year, and 1.5 percent monthly average in Q1 2016-2017.⁸ In October 2016, inflation had come down to 3.5 percent (yoy).



Sources: CSO, WB Staff estimates

⁸ Based on earlier CPI methodology.

Box 6: Recalculating Myanmar's Consumer Price Index (CPI)

In July, Myanmar's Central Statistical Organization (CSO), with technical assistance from the International Monetary Fund (IMF), recalculated Myanmar's CPI basket. The main rationale of the recalculation of the CPI was two-pronged; firstly for the index to better reflect the current consumption patterns across Myanmar, and secondly to follow international standards that would allow comparison at a more granular level.

The newly recalculated index is rebased to the year 2012 from 2006, and the construction of the index is based on the data collected from the 2012 Household Income and Expenditure Survey (HIES). Unlike the previous index, the new index aims to be more comprehensive by not only including urban households, but also rural private households. Furthermore, the new index is computed at Union, State and Region levels.

The new index includes 274 items in the CPI basket, of which 108 are food-related items and 166 are nonfood related items, including goods and services. These items are classified according to the Classification of Individual Consumption According to Purpose (COICOP), which allows for international comparison. Reflecting updated consumption patterns, the 2012-based index also includes automobile, motorcycle, computer, cellphone and phone call charges. The 258 outlets were chosen for pricing surveys is 258 based on the total number of households within a township.

The updated index is a more comprehensive and a more accurate measure of inflation in Myanmar, which should have a positive impact on policy making.

Source: "Comparison of Consumer Price Index Basket Between Current Base Year and New Base Year in Myanmar" (2016). Central Statistical Organization

- 23. Inflation dynamics in H1 2016-2017 were affected more by food supply constraints relative to demand pressures. Much of the food prices are driven by rice, and domestic produce such as fish, meat and egg (Figure 32). Rice prices were above historical levels in H1 2016-2017, which in part was linked to rice exports to China, but also lower paddy supply due to last year's floods. Food prices and headline inflation began to decelerate rapidly in Q3 2016-2017 (Figures 26 and 28), indicating little sign of second round inflation, which is consistent with signs of moderating demand in the economy.
- 24. Data over a longer period points to relatively little association between food inflation in Myanmar and international food and commodity prices (Figure 31). Domestic factors, including extreme weather conditions and local consumption patterns, would seem to play a bigger role in food inflation dynamics (Figure 32). At the same time, there is also evidence of some exchange rate pass through for processed foods in particular (Figure 33). For example, cooking oil and milk products, which account for a large share of imported foods, continued to be impacted by the prolonged weakening of the domestic currency.
- 25. Non-food inflation in Q2 2016-2017 has also fallen sharply, consistent with slowing demand. In H1 2016, non-food inflation was quite persistent, driven largely by clothing and apparel and fuel and lighting, which increased by 10 and 6 percent respectively in July 2016 (yoy). After showing some signs of cooling down late last year, housing costs resumed its rising trend, increasing from 9.7 percent in December 2015 to 10.4 percent in July 2016. Part of the increase in housing costs in 2016 was due to an increase in demand in retail centers.



26. Despite relatively limited concerns at this stage over second-round inflation effects from the earlier supply shock, there are important risks to rising price pressures because of elevated money growth. Headline and food inflation are strongly correlated with money supply growth (Figure 34); non-food inflation is also positively associated with money supply. Although annual growth in overall money stock (M2) has moderated since it peaked at 48 percent in 2012-2013, it nonetheless remained high in 2015-2016 at 23 percent. Public sector financing needs have historically been a big driver of reserve money growth and M2. Since 2012-2013 there has been a slight rebalancing between private and public sector demand. This was in part thanks to reduced fiscal monetization between 2012-2013 and 2014-2015, increased foreign capital inflows and rapidly growing credit to the private sector. In 2015-2016 however, fiscal pressures led to a big acceleration in CBM net claims on government, whilst Net Foreign Assets declined.



Figure 34: Inflation and money supply growth

Source: CSO, CBM, WB Staff estimates



Sources: CBM, WB Staff estimates

27. Notwithstanding recent supply shocks, monetary expansion and the resulting demand for goods and services does contribute to underlying inflation. Demand pressures have outstripped supply side capacity. This impacts on the trade and current account deficits, as illustrated by the relative resilience in the import of consumer items (see trade and investment section). This has added to currency pressures and contributed to exchange rate pass-through (Figure 33).

Rapid credit growth but slow financial inclusion

28. Although credit growth to the private sector moderated in 2015-2016, it nonetheless remained very high. Credit to the private sector grew at 34 percent in 2015-2016, compared to 36 percent in 2014-2015, and 53 percent the year before that. It has been an important driver of M2 growth in the last 5 years. The financial system in Myanmar however is small, even by the standards of low income countries (19 percent credit/GDP in 2015-2016, growing from 9.6 percent in 2012-2013) and financial inclusion very low.



- 29. There are emerging signs of sector concentration of credit and associated risks. Lending to wholesale and retail trade has averaged around 43 percent of total lending in the last 3 years. Agriculture, manufacturing, construction and real estate have each averaged around 15 percent over the same period. This pattern is reflective of the limited range of lending products (mostly 1-year maturity), which create maturity mismatch in sectors such as construction, real estate and manufacturing. Yet these sectors account for over 45 percent of lending. Lending to manufacturing has grown by 23 percent in nominal terms between 2014-2015 and 2015-2016, and by 37 percent for construction over the same period. Yet both sectors have experienced either slowing growth or contraction in output in H1 2016. This may have exacerbated the existing practice of loan evergreening, which would underestimate the true risks to banking sector assets.
- 30. An additional sign of risk are indications that credit is concentrated mostly in a few big borrowers with collateral. Loan distribution remains substantially uneven as micro, small and medium enterprises (MSMEs) still have limited access to finance for investment needs. It is not uncommon for private commercial banks, including relatively large ones, to have only a few hundred borrowers with relatively large average loan size.
- 31. Banking sector soundness indicators as currently reported do not accurately reflect systemic risks. Official data show an increase in banking sector capital from Kyat 683 billion in 2013 to Kyat 1.4 trillion in 2016. The capital adequacy ratio (CAR) in June 2016 was around 19 percent. However, paid up capital, CAR and risk weighted assets are all based on the 1990 Financial Institutions Law standards, which are now dated. Similarly, reported Non-Performing Loans (NPLs) also follow the asset classification and loan loss provisioning requirements under the 1990 FI law, which are dated and not consistent with international practice. The CBM reports that the NPL ratio has more than doubled over the last one year, rising from 1.6% to 3.6%. It is noteworthy that while there has been no marked increase in the capital and CAR of the banks, the NPLs have risen substantially.
- 32. The Financial Institution Law 2016, sets 20 billion Kyat as minimum paid up capital for domestic banks. Regulations to increase the CAR ratio, improve calculation of risk weighted assets, and follow international norms on loan loss classification are in the process of being issued. Reporting done pursuant to the new regulation may reveal higher NPL, which in turn would require higher than current levels of capital in banks.
- 33. Private Banks have expanded quickly and surpassed State Owned Banks (SOBs) in late 2015 in terms of total assets, lending and deposits (Figures 40 and 41). The declining market share of the SOBs and stagnating loans and advances are warning signs for the sustainability of the SOBs (Figure 42). Reforming these banks before they descend into dire financial state is critical.
- 34. Myanmar has four State Owned Banks, 24 private domestic banks and 10 foreign banks, along with 49 representative office of foreign banks. The banking sector accounts for the majority of financial sector assets and is dominated by 4 State Banks (with decreasing market share) and 3-4 large Private Banks. As of September 2016, the 4 State Banks accounted for around 42 percent of total banking sector assets (Figure 40), while the top 3 private banks accounted for approximately 36 percent. The 3 large private banks account for more than 50 percent of the total branches in the system, and most of the new branch openings over the past three years. Small private banks and State Banks have hardly opened any new branches. Most of the other banks are of very in small size and 9 of them are owned (fully or partly) by non-bank entities (military or local Governments).



Exchange rate pressures

35. A general strengthening of the US dollar combined with Myanmar's growing external imbalances have put downward pressure on the Kyat-US\$ exchange rate since the end of 2016. The US dollar appreciated in mid-2015 following signs that the Federal Reserve would raise interest rates, which it did in December 2015 (0.25 percent to 0.50 percent) (Figure 43). The Kyat and other currencies rebounded over the course of 2016. Subsequently, Myanmar's prolonged current account deficit combined with slowing foreign investments have weighed on the Kyat. The average monthly reference rate fell by around 9 percent between August and December (Figure 44). The hike in the US interest rates in December 2016 led to further US\$ appreciation. The Kyat reached its highest reference rate against the US\$ in late December (Kyat 1,375/US\$) since the exchange rate regime was opened up in April 2012.



Source: Central Bank of Myanmar, Authorized Money Changers, CEIC, IFS, WB staff estimates.

- 36. The Central Bank of Myanmar has maintained exchange rate flexibility though the slight lag in adjusting the reference rate to the market rate has posed challenges for the official market. The lag is reflected in the growing gap between the reference rate and the parallel rate. At the end of November, the parallel rate was close to 5 percent higher than the reference rate (Figure 44). Since the exchange rate regime only allows flexibility of +/- 0.8 percent from the reference rate for licensed foreign exchange dealers, the latter are effectively locked out of the market. This also hampers the operation of the interbank foreign exchange market, which is also subject to the same exchange rate band. Whilst the reference rate eventually adjusts to the market rate, the interim gap poses challenges for development of the official market.
- 37. **Pressures on foreign exchange reserves have meant less interventions in the auctions**. Between September and November 2016, the Central Bank sold close to US\$215 million compared to US\$25 million in the preceding 10 months. Since then, however, the volume of transactions has fallen quite significantly, with large unmet demand (Figure 45). The interbank foreign exchange market, which is expected to replace the current auction system once it is fully developed, seems to be somewhat picking up the unsatisfied demand from the auctions. Customer Dealings in the interbank market saw increases in USD turnover with February 2016 experiencing the highest monthly average of 48 million dollars (Figure 46),⁹ which nonetheless remains relatively small.



Figure 45. Monthly Average Auction Results

Figure 46: Interbank Exchange Market Average Monthly Data



Source: Central Bank of Myanmar, Authorized Money Changers

38. Domestic price pressures and exchange rate developments in Q1-Q3 2016 led to an appreciation of Myanmar's Real Effective Exchange Rate (Figure 48). The REER appreciated by 11.5 percent between January and July 2016. Aided by the recent depreciation of kyat, the REER dropped by 2 percent between July and August. Compared to trading partner countries with available REER data, Myanmar experienced the sharpest appreciation of its REER first half of 2016 as a result of high and persistent inflation over this period.

⁹ Interbank foreign exchange market data available from 1 October 2015 to 31 October 2016.



Source: Central Statistical Organization, CEIC, IFS, World Bank staff estimates

Fiscal policy

39. Fiscal pressures in 2015-2016 led to a sharp rise in monetization, which has prompted renewed urgency to curb borrowing from CBM. The public sector deficit tripled from 1.1 percent of GDP in 2014-2015 to an estimated 3.2 percent of GDP in 2015-2016 (Figure 49) due to a combination of declining commodity revenues, exchange rate depreciation, unexpected expenditures for flood and disaster relief, and a higher wage bill (Figure 50). The deficit is expected to increase further to 4.5 percent of GDP in 2016-2017. Gross financing needs were further increased by net losses from SEEs (-0.5 percent of GDP) driven by external pressures on the energy sector and a loss of competitiveness. Net lending by the CBM grew sharply by 42 percent in 2015-2016 (Figure 51).



Figure 50: Revenue and expenditure aggregates (% of

Sources: MOPF, WB Staff estimates

40. Monetization had been on a declining trend since 2010, though still an important and steady share of financing due to a lack of either domestic or external alternatives. The legacy of monetization before Myanmar's reintegration with outside creditors has caused the stock of CBM debt to average around 85 percent of the total outstanding domestic debt stock since 2005 compared to less than 20 percent on average for a sample of Low Income Countries in the early 2000s.¹⁰ The prolonged period of monetization in Myanmar stands in contrast to other countries where spikes in central bank financing is most often in response to fiscal crisis.¹¹ CBM financing in Myanmar has averaged 2.7 percent of GDP per year over the last 10 years, peaking at 5 percent in 2015-2016 (Figure 51).



Sources: CBM, WB Staff estimates

- 41. The government has signaled its commitment to reducing inflationary financing of the Budget by recently adopting limits on CBM lending (40 percent of gross financing needs) and making the costs more market-orientated. Starting in 2016-2017, CBM lending is closer to market terms (around 7-8 percent) and no longer at a flat rate of 4 percent. This provides a disincentive for monetization and is also consistent with development of the domestic debt market.
- 42. Efforts are underway to develop the domestic debt market, which could over time reduce dependence on monetization. The government has expanded Treasury-Bill auctions since early 2016-2017, including through the introduction of longer tenure bills (6 and 12-month bills). Successful bids in the Treasury-Bill auctions have trebled in the first two quarters of the fiscal year compared to the same period last year, though accounted for only 15 percent of the auction target (Figure 52). This could be due to negative real interest rates (-1.1 percent average per quarter between Q1 2015-2016 and Q1 2016-2017) (Figure 53), and annual discount rates being either close to or below bank deposit rates.

¹⁰ Bua, G; Pradelli, J; Presbitero, A, "Domestic Public Debt in Low-Income Countries," World Bank Policy Research Working Paper 6777 (February 2014)

¹¹ Easterly, W; Schmidt-Hebbel, K, "The Macroeconomics of Public Sector Deficits: A Synthesis," World Bank Working Paper 0775 (October 1991)

43. In addition to expanding Treasury Bill auctions, the government also launched Treasury Bond auctions in September 2016. Auctions between September and November successfully raised close to Kyat 400 billion from the market, and another Kyat 400 billion from non-competitive sources (Figure 54). Treasury-Bonds could gradually help to rebalance the domestic debt portfolio towards longer-term liabilities. This is a major achievement, though together with Treasury-Bill auctions, less than 50 percent was purely market-based borrowing.



Sources: CBM, WB Staff estimates

- 44. **Expenditure adjustments to maintain fiscal discipline point to efforts to protect public spending that is critical for long-term growth**. In Myanmar, 6 out 22 ministries account for 80 percent of total ministry spending: Defense, Education, Health, Agriculture, Energy and Planning and Finance. Health Ministry spending has seen the biggest level increase since 2009-2010, followed by Education and Agriculture (Figure 55).¹² Between 2009-2010 and the 2016-2017 approved budget, spending for these ministries grew at a faster pace than spending for ministries as a whole. Their overall share as a result increased. The 2016-2017 Budget protects spending for these ministries with adjustments in other areas (Figure 56).
- 45. At the same time, there are other important areas that seem under-resourced. Myanmar has one of the lowest spending on social protection, at less than 0.5 percent of GDP. Yet evidence from other countries suggests that the relative impact of social transfers on promoting social stability and poverty reduction in conflict-affected countries is very significant.¹³ On economic services, public investment in the energy sector is currently well below needs. For Myanmar to achieve universal access to electricity by 2030, new investments in power generation, transmission and distribution are needed at nearly US\$2 billion per year over the next 15 years.¹⁴

¹² Spending by the Ministries of Health and Education do not account for all public sector spending in the Health and Education sectors. The last Myanmar PER (2015) estimated that the Ministry of Education accounted for around 80 percent of education spending in the public sector, and the Ministry of Health around 75 percent.

¹³ Collier, P; Hoeffler, A, "Aid, Policy and Growth in Post-Conflict Countries," World Bank Conflict and Prevention Unit (2002)

¹⁴ The World Bank, "Energizing Myanmar: Enhancing Access to Sustainable Energy for All," (2016)



Sources: MOPF, WB Staff estimates

46. In addition, despite Myanmar's large infrastructure gaps, capital spending as a share of GDP has consistently declined since 2012-2013 (Figure 58). Part of the decline reflects completion of public works associated with the establishment of Nay Pyi Taw. But more recently, cuts have been in response to fiscal constraints. Capital expenditures, and expenditure on goods and services, unlike spending on wages and salaries, could have a very significant positive impact on long-term growth rates.¹⁵



Source: EAP Update, October 2016

47. Of particular concern is the decline in allocations to physical infrastructure in core economic services. From 2011-2012 to 2014-2015, there has been a gradual decline in capital spending in the energy and transport sectors. The lack of sustained funding is detrimental, especially considering the multi-year nature of infrastructure projects and the network effect where output of one project is closely linked with overall service delivery.

Sources: MOPF, WB Staff estimates

¹⁵ Gupta, S. et al, "Expenditure Composition, Fiscal Adjustment and Growth in Low-Income Countries," IMF Working Paper WP/02/77 (April 2002)

- 48. In addition, large capital projects are being de-prioritized.¹⁶ Currently, the budget has around 40 large projects, which account for 83 percent of the total budgeted capital expenditure. The average and total value of large projects has declined significantly since 1995, which may reflect de facto policy to halt new large projects after 2011 in order to put more emphasis on completing existing projects.
- 49. Among the existing large projects, there is growing evidence of implementation challenges and stalled projects. Stalled projects are defined as those that have been under implementation for at least 8 years and have disbursed more than 80% of total original estimated cost. A large number of these stalled projects were re-initiated with funding, from 2012-2013 to 2014-2015, but they have not made significant progress. An assessment of high value large projects highlights that 30 out of 39 large projects are currently stalled, which together account for 29% of the total capital budget. Factors driving slow progress on project execution include lack of strategic project selection, ambitious and rigid project design that is not appraised adequately, lack of multi-year capital budgeting allocation and delays in procurement.

¹⁶ This analysis is based on data on large projects (above 2 billion Kyat value (about \$1.5 million)) from the previous Ministry of Energy and Electric Power and Ministry of Agriculture and Irrigation, which, together with Ministry of Construction, account for all large infrastructure projects in Myanmar.

Economic outlook and policy priorities

Medium-term economic outlook

- 50. Real GDP growth is projected to average 7.1 percent per year over the medium term (2017/18 2019/2020). 2016/17 is an important transition year for the economy. Though growth is expected to remain strong, it is projected to moderate to 6.5 percent due to a combination of slowing private consumption linked to high inflation; a slowdown in the construction sector; productivity constraints and increased competition faced by domestic manufacturers; and stalled investments pending further elaboration of economic policy priorities of the government.
- 51. Economic growth is expected to be driven by a gradual rebound in private investment, particularly in infrastructure services. These include power, transportation, information technology, communications and logistics. Existing levels of internal and external trade are already stretching the capacity of these services. Improvements in these sectors are essential inputs for the productivity and expansion of the agriculture and industrial sectors. As noted earlier, there has been a significant accumulation of foreign investment commitments, particularly in non-commodity sectors including agri-business, light manufacturing, hospitality, and transport and communications. Implementation of these investment projects is expected to pick up subject to continued macroeconomic stability, progress on structural reforms and expansion of critical services.
- 52. Inflationary pressures are expected to ease relative to 2015-2016, averaging 8.9 percent over the course of 2016/17. This is linked to the general slowdown in aggregate demand. There are, however, risks particularly from the projected rise in international commodity prices. Oil prices are expected to recover to US\$55 per barrel in 2017,¹⁷ after going below US\$30 per barrel in mid-January 2016. Non-energy commodity prices are expected to rise 2 percent in 2017 after a 3 percent drop the previous year.¹⁸ Inflationary pressure could be exacerbated with exchange rate pass through, particularly through its effects on imported fuel, processed foods, and construction materials.
- 53. The current account deficit is projected to remain in deficit over the medium-term. This is due to a combination of slowing gas exports, slowing demand in China, and large investment-related import needs. However, a projected pick up in FDI flows means that the overall balance of payments deficit is projected to moderate in 2016-2017. Myanmar's export performance will remain largely affected by the gas sector, which will see declining production until new fields come on stream. There is discussion of using more gas for domestic consumption rather than exports, and possible options to import gas to cover any shortfall for the domestic energy sector, which would further widen the trade deficit. Myanmar has strong links with China through FDI, trade, and tourism, though any impact is likely to come mainly from the trade channel if demand for natural resources, including gems, decline. The impact of the Chinese slowdown on dampening commodity prices more generally would also affect the value of Myanmar's mineral exports in particular.

¹⁷ WBG, "Commodity Markets Outlook" (October 2016)

¹⁸ Ibid.

- 54. The latest IMF-WB DSA assesses Myanmar to remain at low risk of external debt distress. Public and Publicly Guaranteed (PPG) external debt indicators are projected to remain below their indicative thresholds. Total public debt also remains below respective thresholds. The nominal value of PPG external debt in 2015/16 was estimated at 16 percent of GDP, and that of total public debt at 36.7 percent of GDP. PPG external debt remains below indicative thresholds under the standard stress test scenarios, though it is vulnerable to currency depreciation and current account shocks, which cause the PV of external PPG debt to exports to breach the indicative threshold. Public sector debt to GDP breaches indicative thresholds in the event of extreme shocks relating to slowdown in GDP or fiscal slippages. These point to the need for building resilience to shocks, including those emanating from the current account. It will also require proactive debt management to ensure that the debt portfolio rebalances away from short-term to longer-term financing.
- 55. **Despite the relatively favorable outlook, there are several macroeconomic risks**. Persistently low commodity prices could increase fiscal and external imbalances, and exacerbate financing pressures. Myanmar's relatively narrow production base, increased exposure to competition, relative dependence on primary commodities, and vulnerability to natural disasters pose risks to stable growth. Lack of clarity or delays in policy implementation could prolong economic downturns. And a more challenging external environment may make it more difficult for Myanmar to take advantage of export markets.

Selected policy priorities

Clarity, communication and credibility of economic policies

- 56. The government has set out a sound economic agenda, though concerns have also been expressed over the clarity of policy priorities. The National League for Democracy's election manifesto released in October 2015, together with the government's 12 economic policy objectives provide a very good basis for prioritizing reforms that could promote inclusive growth and poverty reduction in Myanmar. There has also been good progress with actual policy implementation including for example the adoption of fiscally prudent budgets, the expansion of the domestic debt market, broadly maintaining exchange rate flexibility, and adoption of the new Investment Law.
- 57. Going forward, an overarching priority could be to further strengthen the clarity, communication and credibility of economic policies. One option could be to release an economic vision, the foundations of which have been set out in the NLD's election manifesto and 12 policy objectives. The vision could spell out expected sources of growth, enabling policies, and the implementation plan. Productivity enhancing reforms in Lower Middle Income Countries like Myanmar, in particular macroeconomic stability, basic health and education, an efficient business environment and basic infrastructure have a large bearing on private investment growth. Clearly communicating these priorities could help further build confidence in the government's economic agenda. Regular reporting against progress could also help to enhance the credibility of that economic agenda.

58. Complementing this vision with regular reporting on economic policies and conditions could play an important role in anchoring economic expectations and sustaining investor confidence. The government could build on existing economic reporting by government agencies on fiscal, monetary, financial sector, and exchange rate policies; policy outcomes; and macroeconomic projections. For example, clarity over fiscal and monetary policy measures to contain demand pressures could have an important role in anchoring exchange rate expectations and avoid speculation. In this regard, MOPF has published fiscal policy statements and Citizens' Budgets; and the CBM has started publishing Monetary and Financial Stability Reports, and is communicating with Parliament and through various media on exchange rate policies.

Balancing fiscal prudence with public investment needs

- 59. The government has indicated its intention to follow a medium-term fiscal consolidation path, whilst ensuring continued expansion of essential economic and social services. This could be underpinned by a clear target of maintaining the deficit to GDP ratio at below 5 percent with gradual consolidation over the medium-term, consistent with fiscal sustainability. The deficit target should preferably be based on Government Finance Statistics standards,¹⁹ which takes account of net financing needs and presents all financing operations "below the line." This provides a more accurate picture of the overall fiscal stance than the more commonly used "accounting method", which treats borrowing as revenue.
- 60. The deficit target could be complemented with a clear statement on accompanying revenue and expenditure measures. On the revenue side, tax policy and administration reforms are expected to help offset the negative impact from low gas prices and falling gas production on the one hand, and declining SEE payments to the budget on the other. Revenues are expected to decline as a share of GDP in 2016/17 because of telecom licensing payments in 2015/16. However, increased income and commercial tax collections, which account for around two thirds of general government revenue, are expected to contribute to fiscal stability over the medium-term.
- 61. On the expenditure side, reallocations across and within sectors away from lower priority to higher priority areas are expected to help accelerate the delivery of much needed public services. One concern is the decline in public investments as a share of GDP given massive infrastructure needs. Though here also it is expected that there will be reallocations from lower to higher priority areas, with concurrent support to strengthen capacity for public investment management.

Rebalancing fiscal financing sources

62. Government policy to limit CBM financing is an important element of balancing fiscal prudence with longer-term investment needs, as well as broader macroeconomic stability. A quantitative limit on CBM financing is a sensible approach in the short-term, as it can support CBM efforts with its Reserve Money target. This could help anchor inflation expectations. Over the medium-term, a prudent policy goal would be to only resort to monetization for specific emergency purposes (e.g. natural disasters, severe cash shortages). This could further strengthen the credibility of government financing reforms and commitment to more independent monetary policy.

¹⁹ IMF, "Government Finance Statistics Manual 2014"

⁽https://www.imf.org/external/Pubs/FT/GFS/Manual/2014/gfsfinal.pdf)

- 63. Ongoing efforts to expand the domestic debt market, and by implication lower reliance on monetization, can support monetary independence and counter-cyclical fiscal policies. Over time, a larger volume of domestic borrowing instruments can help lower exposure to currency risks, and support the strengthening of the institutional infrastructure for local financial markets, as is starting to happen in Myanmar. They could be an important driver of fiscal and monetary policy transparency and credibility. In the short-term, they are unlikely to crowd out financing for the private sector given the small size of the government securities market and other more binding constraints on private sector access to credit.
- 64. Although developing the domestic debt market is a long-term process, it could be supported in the near term by accepting higher interest rates at Treasury Bill auctions. The current level of market participation is not unusual at this very early stage in domestic debt market development. Other Lower Middle Income countries with more mature public debt management systems have been able to develop deeper and more reliable domestic debt markets, for example expanding volumes through substantial non-resident investor participation.²⁰ In the near term, accepting higher interest rates at the auction would imply bigger costs to the government. But these could be partially offset through greater returns (or lower losses) to CBM; enable greater market participation; and further reduce inflationary financing.
- 65. At the same time, financing for public investment and growth cannot be driven by domestic debt in the near or medium-term. Aside from the challenges in raising sufficient resources, public investments have long gestation periods. Current tenors on domestic Bonds (2, 3, 5-year) can lead to maturity mismatch and rollover risks. The ability to issue longer-term liabilities at lower cost will go hand in hand with the gradual strengthening of wider policy and institutional capacity.
- 66. As part of its financing diversification, Myanmar should therefore make the most of its access to long-term external concessional financing. Domestic financing cannot substitute for this in terms of volume, interest cost or maturity. Earlier studies have shown that in LICs, external financing can have a positive impact on long-term growth.²¹ A rebalancing towards longer-term concessional finance, which is currently below the average share of total financing in LICs (Table 4), could help to lower the cost and risk of Myanmar's public debt portfolio. It can also help address weaknesses in public investment management capacity through external technical assistance.
- 67. A clear strategy on external concessional finance is particularly important given that Myanmar may graduate from access to concessional finance in the next 5-10 years. This could mean prioritizing concessional finance for major projects in the Union Budget or for general budgetary financing. It also means full integration of external concessional finance in the government's borrowing strategy. This should enable an assessment of costs and risks of alternative financing mixes. This could help to create fiscal space in a sustainable and non-inflationary manner to promote longer-term economic growth.

²⁰ The World Bank, International Monetary Fund, "Public Debt Vulnerabilities in Low Income Countries: The Evolving Landscape," (November 13, 2015)

²¹ Gupta, S. et al, "Expenditure Composition, Fiscal Adjustment and Growth in Low-Income Countries," IMF Working Paper WP/02/77 (April 2002)

	LI	С	Myanmar					
	2007	2014	2013/14	2013/14 2014/15				
External	38.0	33.8	16.2	13.5	16.0			
Multilateral	20.4	16.1	2.5	2.0	2.3			
Bilateral	14.1	13.8	13.8	11.5	13.7			
Paris Club	7.0	3.0	6.2	4.7	5.7			
Non-Paris Club	8.0	11.7	7.6	6.8	8.0			
Commercial	3.5	4.1	0.0	0.0	0.0			
Domestic	14.7	15.1	19.9	17.8	20.7			
Total	52.7	48.9	36.1	31.3	36.7			

Table 4: Debt stock by creditors (% of GDP)

Source: WB and IMF (November 2015) and WB Staff estimates

Maintaining monetary discipline and exchange rate flexibility

- 68. Greater fiscal discipline and the expansion of the government securities' market are expected to ease pressures on monetary policy. There will however also be increased liquidity from foreign capital inflows and growing deposits in the commercial banking sector. This will require scaled up Central Bank deposit auctions to help tighten liquidity conditions, in line with the CBM's reserve money target and price stability goals. Government securities' and deposit auctions have to some extent liberalized interest rate for wholesale money market transactions, reflecting a gradual move to indirect instruments for money supply control. Indirect instruments provide more effective monetary control, contribute to money and capital markets development, and reduce risks of misallocating resources.
- 69. Together with monetary discipline, maintaining exchange rate flexibility is important to alleviate external pressures. Monetary expansion has impacted on the trade and current account deficits, as illustrated by the relative resilience in the import of consumer items. This has added to currency pressures and contributed to imported inflation. At the same time, maintaining exchange rate flexibility by allowing the reference rate to adjust to market conditions through the foreign exchange auctions. Whilst the reference rate has adjusted, it has done so more recently with a lag. When the market rate goes beyond the +/- 0.8 percent official trading band, official dealers get effectively excluded from the market, which hampers the development of the formal market.

Mitigating financial sector risks

70. As monetary policy capacity develops, the CBM policy rate could play a bigger role in managing inflation, and mitigating financial sector risks. This may warrant reviewing the merit of maintaining administratively fixed interest rates and gradually introducing more flexibility. Banks are subject to both a ceiling and a floor for lending rates (13% and 10% per annum respectively). Interest rate caps are often justified on prudential grounds in cases where credit and risk management skills are weak and regulators' supervisory capacity is low. There is also the concern that financial stability may be affected if interest rate restrictions were lifted too soon. It is also argued that a floor on deposit rates help ensure sufficient returns on Kyat deposits and mitigate against dollarization risks and depreciation pressures.

- 71. Nonetheless, interest rate caps tend to shift lending to lower risk activities, to the detriment of micro, small and medium enterprises (MSMEs).²² They can impede the development of a healthy credit market in the long term as MSMEs are seriously underserved. On the lenders' side, loan portfolios becomes more concentrated and there are no incentives for risk-based lending in a more competitive credit market. Banks introduce explicit (and implicit) fees to cover operating costs and make profits in an environment where there are interest rate caps.
- 72. The authorities could consider a phased relaxation of interest caps. This could be partial to encourage medium- and long-term deposits (i.e. interest rate caps can be maintained for short-term deposit rates) that will form the appropriate funding base for longer-term commercial loans. The benefits of such an approach could be manifold. While lenders are able to plan better, price risks more adequately and reduce operating cost, borrowers will have a stable source of financing for business expansion/investment. Regulators/supervisors could also be able to better guard against loan ever-greening, which seems to be a problem in the current system.
- 73. In the near term however, implementation of the new Financial Institutions Law (2016) through issuance of prudential regulations could be critical for financial sector stability. Issuance of regulations on acquisition of substantial interest, large exposure, loan classification and provisioning would help set good practice standards, transition to risk-based supervision, and further empower supervisors to implement the Financial Institutions Law. They could also provide a stronger basis for regular reporting on Financial Sector Soundness Indicators, which the CBM plans to do in the near future. Without this it is difficult to gauge the real health of the banking system, which in turn can distort economic expectations.
- 74. These efforts could be usefully complemented by the development of a creditor reporting system, which is also envisaged under the Financial Institutions Law. This could help to improve lending decisions and reduce risks, whilst potentially expanding access to finance. There is currently no credit bureau/registry to facilitate lending decisions. The regulation on credit reporting is expected to be issued soon, with at least one credit bureau starting operation by June 2017. Consumer protection (for borrowers) could therefore be strengthened accordingly.

Revising tax incentives policy

- 75. The recent adoption of the Investment Law (2016) offers a good opportunity to rethink policy on tax incentives. Tax incentives could be good for long-term growth if they generate incremental investment (i.e. new investment that would not have taken place in the absence of tax incentives). On the other hand, foregone revenue could exacerbate fiscal imbalances, or shift the tax burden to other areas, to the detriment of overall investment, growth and poverty reduction.
- 76. In Myanmar, prior to the new Investment Law (2016), foreign firm applications approved by the Myanmar Investment Commission received automatic tax relief (first on imports during the development phase, and then on other taxes for the next 5-7 years). The system was not well targeted, unnecessarily generous, and did not involve Myanmar's Internal Revenue Department. In addition, under the "officially assessed" tax compliance system, which is gradually being phased out, many taxpayers were able to negotiate exemptions with the tax authorities, which were not reflected in tax submissions.

²² Maimbo, SM; Gallegos, CAH, "Interest Rate Caps around the World: Still Popular, but a Blunt Instrument," World Bank PRWP 7070 (October 2014)

- 77. As Myanmar reforms tax incentive policies, it may be important to consider 4 issues.²³ The first is the types of tax incentives. Myanmar, offers a very broad range of tax incentives. The least effective among those are tax holidays that grant blanket exemptions over a period of time. Despite the 5-year time limit, when profits are low due to start-up costs, these are often renewed or companies close businesses at the end of the holiday period and reopen as a new investment. Tax holidays can perpetuate transfer pricing to channel profits from a profitable company to a tax holiday company. Investment-linked incentives (e.g. investment allowances, accelerated depreciation, training) are better as these are more directly linked to capital investments (and potentially job creation).
- 78. The second issue is on the targeting of tax incentives. The Investment Law does away with blanket exemptions and is looking to develop policy for better targeted incentives. Evidence from other countries shows that the impact of tax incentives on FDI is on average very limited for developing countries. Within this, however, export-oriented investors and highly mobile investors (e.g. in garments) can be more sensitive to tax incentives compared to investments oriented to the domestic market. Tax incentives therefore could be adapted to the type of investments. The government could adopt metrics to underpin the justification of giving incentives. With that in place, then incentives to firms/sectors could be granted on the basis of objective (and social relevance) criteria.
- 79. An overarching principle is that incentives should be targeted to sectors that generate significant economic (social) returns, but limited financial (private returns). This can be assessed on a project by project basis. The rationale is that the revenue foregone from tax incentives is equivalent to reduced expenditure on public goods. This is why tax incentives are also referred to as tax expenditures. Therefore projects that have high economic (social) returns but low financial returns could usefully be incentivized, to offset lower spending on public goods. An example of this type of investment could include for example private investment in education facilities, or investment to create jobs in disadvantaged areas.
- 80. The third issue is around the administration of tax incentives. The eligibility criteria for incentives should be simple and transparent. The policy should be consolidated in a single legal instrument, and should have the full engagement of the Internal Revenue Department. The transition to a "self-assessed" system of tax compliance should help reduce discretionary tax incentives. Large taxpayers that have already transitioned to self-assessment are required to declare tax incentives in their tax submissions. Self-Assessment has been rolled out to the Medium-Tax Payer Office-1 (MTO-1) this year, with plans to further roll out in MTO-2 and 3 in the coming years.
- 81. Improved administration could help with the fourth issue, which is around the transparency of tax incentives. Few countries in the East Asia and Pacific Region estimate the revenue foregone as a result of tax incentives. A tax expenditure statement, which provides an estimate of costs of tax incentives, and makes this information public as part of the annual budget is important to allow debate on the effectiveness of tax incentives. Estimating tax expenditures is not an easy task, particularly for consumption taxes. It would therefore make sense to start with Corporate Income Tax for large taxpayers, then gradually to other tax payers and tax types.

²³ Adapted from "Rethinking the Use of Tax Incentives in East Asia and the Pacific – East Asia and Pacific Economic Update," The World Bank (October 2015)

Accelerating private investment and trade

- 82. Broader implementation of the new Investment Law could improve the transparency and predictability of the investment climate and thereby help accelerate private investments. Implementing regulation could help clarify: Role and responsibilities of Myanmar Investment Commission (MIC); access and entry of investments; procedures for expropriation, court appeal, and paying compensation; investor incentives; dispute settlement; and other relevant provision. Those implementing regulations have also to be drafted, consulted with stakeholders, and ensure coherence with other laws (e.g. Immigration Law, Labor Law, Tax Law).
- 83. Similarly, the 2016 Arbitration Law was passed and there is still need for issuance of decrees and notifications to implement the law. The government can also propose to the Parliament for discussing and passing the Companies Act to strengthen confidence on the regulatory quality for corporate governance in Myanmar.
- 84. Trade to GDP in Myanmar has accelerated very rapidly, averaging 30 percent per year in the past five years, compared to less than 1 percent in the preceding 5-year period. This is the result of not only access to new markets, but also increased access to critical inputs for both foreign and domestic investment. The recently completed Myanmar Diagnostic Trade Integration Study²⁴ (DTIS) provides a comprehensive agenda for expanding Myanmar's trade potential. This points to an important agenda on trade facilitation and logistics. While the Myanmar Automated Cargo Clearance System (MACCS) by Customs marks an important step in improving customs process, more could done to improve efficiency of cargo coming in-and-out the port terminals in Yangon, such as improving navigational access to ports, repricing of fees for storing cargo at terminals, and implementing risk management for inspections.
- 85. For inland border, improving procedures and facilities for traders to utilize formal border checkpoints (e.g., Muse, Myawaddy, Thamu) and simplifying procedures for small border trade can also increase participation in formal trade channel. To incentivize domestic investors to channel savings to the export sector, the government could consider streamlining the process of business permits and registrations especially for small & medium enterprises (SMEs). Only around ¼ of SMEs in Myanmar are registered companies and key permits (such as constructions) take time or required frequent renewals. Streamlining procedures for business registration, operational permits, and tax number can help SMEs engage in formal business and help financial sector to extend lending to SMEs.

²⁴ World Bank, "Myanmar Diagnostic Trade Integration Study: Opening for Business," (June 2016)

Special topics

Firm survival and employment in a period of high growth in Myanmar

Rates and factors affecting firm survival

- 86. Increased private sector growth and competition in Myanmar affect firms' ability to survive, enter, and expand in increasingly dynamic markets. Within this context, low productivity firms may cease operations due to their inability to compete. The displacement of less productive firms and old production processes by new and more efficient ones ("creative destruction") can help reallocate resources to more promising firms and sectors, and thereby drive productivity and growth. Understanding the factors that affect firms' ability to compete and remain in business could have important policy implications in terms of addressing bottlenecks to growth.
- 87. An ongoing update to the World Bank's 2014 Enterprise Survey (ES) data for Myanmar provides an opportunity to examine the survival rates of manufacturing and services enterprises. Around 1,000 firms surveyed in the 2014 ES were tracked back in late 2016 to determine their current operating status, and subsequently assess the rates and factors that may explain firm exit.²⁵
- 88. **Results from the updated ES point to high rates of firm exit in Myanmar over the past two years.** Out of the 1,000 firms in the 2014 ES, around 377 firms had closed down (i.e. exited). Based on this, and subject to caveats on potential misclassification or other error, about a third of firms interviewed during the 2014 survey have gone out of business as of 2016; about 17% of firms cease operation annually over the past two years. Using Enterprise Survey data for 47 countries²⁶, Aga and Francis (2015) finds annualized exit rates of about 7%.
- 89. Over 80 percent of exits are either micro or small enterprises, which tend to be less productive than larger enterprises (Figure 59). Results show that surviving firms tend to be larger, less likely to be credit constrained, and tend to have more experienced managers. Larger enterprises also would tend to benefit from economies of scale, more skilled labor, and access to technology and better production. Around 80 percent of firms exiting are in retail and services, and only 20 percent in manufacturing (Figure 60). Manufacturing firms tend to be larger, and are also likely to be more established enterprises, with higher wind up costs than service and retail enterprises.
- 90. Results also show however that exiting and surviving firms are virtually the same in terms of labor productivity (In of the ratio of sales to total employment), employment and sales growth. This may be because other factors mentioned above may be more binding constraints to firm survival than labor productivity.

²⁵ The 2014 ES covered around 1,000 formal enterprises in Yangon, Mandalay, Bago, Taunggyi, and Monywa. Of these, there are 460 microenterprises (firms with less than 5 employees) and 632 firms with 5 or more employees. ²⁶ Myanmar was not included in the sample.



Source: WB Staff estimates

- 91. Econometric analysis of firm exit also indicates that labor productivity is not a good predictor (Table 5), though the results would likely be different if Total Factor Productivity (TFP) were considered.²⁷ TFP, based on ES data, can only be computed for manufacturing firms. Using a TFP measure for a sub-set of firms for which this variable can be generated (column 5 and 6 of (Table 5) shows that firms with high TFP are less likely to exit. Though it is difficult to generalize given the small sample size. Regression results show that firms that were credit constrained in 2014 are 13 percentage points more likely to exit business by 2016. Access to electricity does not seem to predict the likelihood of exit.
- 92. The high rates of firm exit in Myanmar underline the importance of continued efforts to improve the business environment, which impact on firms' ability to grow and also absorb shocks. As noted above, the high rates of exit may not be a bad sign if exit reflects underlying reallocation of resource to more productive and innovative firms. But the broader business environment can also hamper firms' ability to become more productive. The updated ES analysis reaffirms in particular the importance of expanding access to credit. This is essential for investments in new technology, staff skills, and machinery upgrades to enhance productivity. This is not only important for growth, but also to absorb sudden cost hikes, which can put enterprises out of business. Access to credit can also enable smoothing of cash flow for seasonal businesses.
- 93. Although not captured by the survey, the high rates of firm exit also underline the importance of the broader macroeconomic environment, which can exacerbate risks to firm exit. Macroeconomic instability (e.g. inflationary pressures, exchange rate volatility) affect productivity through cost pressures and unforeseen shocks, as experienced recently by Myanmar producers. Therefore sustaining macroeconomic stability through measures discussed in this monitor is important for enterprise survival and growth.

²⁷ Equation is estimated using weighted probit to account for the fact that ES data is collected using a stratified sampling method. $exit_{i,t+1} = \alpha + \beta_1\gamma_{it} + \beta_2X_{it} + \varepsilon_{it}$, where: $exit_{i,t+1}$ is a dummy taking a value of 1 if, based on the latest block enumeration, if a firm is determined to have ceased operation as of 2016 and zero otherwise; γ_{it} is a measure of labor productivity, computed as total sales to total employment; X_{it} is all firm-level attributes that are believed to determine the likelihood of exit; and ε_{it} is a normally distributed error term.

Table 5: Predictors of Firm exit

The dependent variable is a dummy equal to one if the firm is deemed to have gone out of business and zero otherwise. Estimates provided are marginal effects of probit regression accounting for sampling weight. Standard errors are clustered at sampling strata, define by a combination of size-sector and region, and region level fixed effects are controlled for. T-statistics are in parentheses. *, **, *** denote significance at 10, 5, and 1 percent, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
In(Labor productivity)	-0.001	0.004																	0.019
	(-0.072)	(0.242)																	(1.079)
Labor productivity growth			0.013**	0.015															-0.016
			(1.996)	(1.568)															(-0.608)
TFP					-0.120**	-0.140***													
					(-2.253)	(-2.807)													
Lack of access to credit															0.129***	0.136***			0.137***
															(4.827)	(4.314)			(4.363)
Sales growth																	0.001	0.002**	0.005**
																	(1.404)	(2.133)	(2.156)
In(Age)		0.029		0.048		0.145		-0.010		-0.007		-0.007		-0.009		-0.009		0.078*	0.057
		(0.786)		(0.786)		(1.295)		(-0.326)		(-0.199)		(-0.187)		(-0.288)		(-0.320)		(1.678)	(0.729)
Top Manager's experience		-0.005*		-0.005**		-0.007		-0.002		-0.003		-0.001		-0.002		-0.002		-0.006**	-0.006
		(-1.892)		(-2.014)		(-0.671)		(-0.706)		(-1.045)		(-0.322)		(-0.725)		(-0.916)		(-2.258)	(-1.186)
Top manager is female		-0.025		-0.017		0.219		-0.026		-0.031		-0.019		-0.026		-0.025		-0.019	-0.013
		(-0.682)		(-0.470)		(1.234)		(-0.799)		(-0.907)		(-0.595)		(-0.790)		(-0.933)		(-0.662)	(-0.344)
10% or more foreign owned		-0.106*		-0.029		0.293**		-0.060		-0.075		-0.155***		0.044		-0.014		-0.209	-0.040
		(-1.769)		(-0.564)		(2.454)		(-0.959)		(-1.202)		(-3.073)		(0.391)		(-0.272)		(-1.430)	(-0.342)
Manufacturing		0.010		0.020				0.003		0.029		-0.030		0.010		-0.002		0.020	-0.008
		(0.160)		(0.323)				(0.054)		(0.466)		(-0.550)		(0.158)		(-0.035)		(0.366)	(-0.121)
Retail		-0.087**		-0.073				-0.081***		-0.057**		-0.090***		-0.085**		-0.070**		-0.082	-0.056
_		(-2.181)		(-1.476)				(-2.892)		(-2.127)		(-3.981)		(-2.361)		(-2.528)		(-1.393)	(-0.798)
Dummy of power outage							0.006	0.014											
F							(0.128)	(0.294)	0.012	0.012									0.014
Frequency of power outages									-0.013	-0.013									-0.014
									(-0.910)	(-0.995)	0.020	0.026							(-0.433)
Loss due to power outage (%sales)											-0.020	-0.030							-0.029
In(Size)											(-0.708)	(-0.039)	0.014	0.000				0.001	(-1.002)
11(3)20)													(0.597)	(-0.203)				(0.001	-0.004
Observations	948	914	824	798	113	113	1,091	1,051	934	896	910	877	1,068	1,029	1,020	990	937	888	589

Net employment impact of firm exit, entry and expansion

94. The exit, entry and survival of firms have had an important effect on net job creation (Figure 61). Over all, the net job creation rate was 13 percent per annum,²⁸ comprised of job creation from new entrants at 18 percent per year and surviving incumbent firms growing at 7 percent a year; these expansions offset annual job losses due to contracting survivors (4 percent) and to firms exiting the market (a job loss rate of 10 percent a year).



Source: WB Staff estimates

95. When these rates are broken out by firm size,²⁹ the data shows a pattern of job creation and job destruction by the very smallest and the very largest establishments. That is, an abundance of entering micro firms and a handful of new large establishments (those with at least 100 employees) provide the two largest sources of job creation due to firm entry. The entrance of micro-sized establishments contributes nearly 40 percent of job creation from new entry, this is followed by a 34 contribution from large firms (Table 6). That is, nearly three quarters of new jobs from entrant establishments was contributed by the very smallest and the very largest firms. A similar pattern holds for those exiting firms. Thirty-five percent of jobs lost due to exit come from large establishments exiting the market (Table 6), followed by nearly thirty percent from micro firms exiting (though the overall rate from exit is 10 percent, well offset by the entrance of new establishments).

²⁸ Since figures are only from 2016 and 2014, rates are annualized assuming a compound growth function and a delta of three periods.

²⁹ Following conventions from the job growth literature, firms are classified based on their two-period average size

	Surviving									
	Entering	Job Creation	Job Destruction	Exiting						
Micro (1-4)	39%	4%	13%	28%						
Small (5-19)	16%	12%	25%	19%						
Medium (20-99)	12%	15%	23%	18%						
Large (100+)	34%	69%	40%	35%						
	100%	100%	100%	100%						

Table 6: Share of job creation and destruction by firm size

Source: WB Staff estimates

- 96. **By contrast, among surviving firms, large firms tend to make up the bulk of positive and negative movement.** These firms account for 70 percent of job creation from existing firms expanding and forty percent of losses from firms contracting their labor force. This is unsurprising, as these firms are less likely to suffer from the "liability of smallness", that is rather than go out of business, they will shed jobs.
- 97. **By sector, the most job movement has occurred in the manufacturing sector** (Table 7). Jobs in manufacturing account for the plurality (over 40 percent) of jobs from new entrants as well over three quarters of job creation from the expansion of existing, incumbent firms. Yet manufacturers also account for majorities (near 60 percent) of job losses both from contraction and firms exiting the markets, suggesting that it is a particularly dynamic sector.

	Surviving					
	Entering	Job Creation	Job Destruction	Exiting		
Manufacturing	41%	76%	63%	59%		
Retail	23%	8%	14%	18%		
Other Services	36%	16%	24%	24%		
	100%	100%	100%	100%		

Table 7: Share of job creation and destruction by sector

Source: WB Staff estimates

98. **Recent economic growth therefore has come with some expansion in job opportunities.** Though these rates may be considered an upper bound, the overall and pattern seem consistent the shifts in the economy discussed above. New business entry seems to be driving job expansion, with both many very small, micro-sized firms and a few newly established large firms contributing nearly three quarters of this growth.³⁰ At an overall (annual) rate of 7 percent increase due to job expansion, this more than offsets the negative 4 percent rate due to job contraction. Here, though, it is large firms that account for the largest part of dynamism, pointing out that while these large firms may be adjusting their labor forces, resulting in some job movement, the same shifts among small firms come from those firms entering and exiting the market altogether.

³⁰ Though, as highlighted, new firm entry may suffer from data measurement issues, this dynamism is still confirmed by only looking at surviving incumbents — those for which there are fewer issues as the same establishments are surveyed in both 2014 and 2016.

Selected issues and policy options for managing informal border trade

99. Inland cross-border trade plays an important role for Myanmar which shares direct borders with China, India, Bangladesh and Thailand. It provides key gateways to strategic markets with millions of consumers. Whilst a large percentage of trade is already crossing borders through formal channels, there is also growing concern over informal cross border trade (ICBT). ICBT takes several forms (Figure 64) including informal border trade and illegal border trade (Mya Than, 2005); which have also been characterized respectively as "illegal but licit" (e.g. vehicles, pharmaceuticals, agricultural commodities) and "illegal and illicit" (e.g. drugs, weapons) (Set Aung, 2011).



- 100. Policy makers and domestic industry are expressing growing concerns over ICBT between Myanmar and its neighbors. Focusing on informal border trade (i.e. illegal but licit), this section provides an overview of: the possible socio-economic effects of ICBT; the motivation for and actors involved in ICBT; the potential scale of ICBT with China and Thailand; and potential options for managing ICBT.
- 101. This is not a comprehensive review, and is only meant to summarize selected issues related to ICBT and policy options to address them. It is based on a literature survey of informal border trade in Myanmar (and other countries), mirror trade data analysis, analysis of cartographic material on the geography of Muse border-point, and 3-week field observations and interviews (Muse, Lashio, Kutkai, Mandalay and Yangon).

Socio-economic effects of ICBT

102. Policy makers are increasingly concerned about the risks associated with the illegal trade. This includes trade in dangerous substances, such as materials for producing narcotics, inferior quality or expired food products, and bogus pharmaceutical products that have a negative impact on health. ICBT also leads to significant loss of revenue to the government exchequer through unpaid customs duties and commercial taxes. Domestic manufacturers, including multinational firms operating in Myanmar, are concerned about unfair competition from informal imports of similar products entering the country without paying the appropriate duty and taxes or without the need to meet domestic quality standards. Against this background, there is increased interest among policy makers to "formalize" inland border trade by cracking down on ICBT.

- 103. At the same time ICBT is an important source of income, including for poor families living in border areas. The burden of business regulations and lack of access to finance pushes businesses to informality. This can help temporarily bridge the need to generate income by poor households constrained by assets and know how to expand businesses. Informality can also serve the need of poor and vulnerable households in remote areas.
- 104. Studies on informal border in Mozambique, Malawi and Tunisia point to a number of socioeconomic benefits. In Malawi in the late 1990s, it was estimated that 25 percent of the total value of informal trade constitutes the incomes of different stakeholders such as carriers and informal money changers (Minde, Nakhumwa, 1998). In Mozambique it was found that the monthly net income of traders in the informal traders exceeded the incomes gained in the formal trade sector by a factor of four. These studies recognize the significance of lost government revenues through customs evasion, though some conclude that the household welfare gain may offset the lost revenue (Minde, Nakhumwa, 1998). This calls for a more careful approach than simply "cracking down" on ICBT.
- 105. Furthermore, the problem is not only related to economic concerns, but also to security issues in the border areas of Myanmar. There is evidence that local armed groups in border areas are heavily involved in facilitating ICBT through informal checkpoints³¹. Products smuggled by such groups include agricultural products, alcohol, gems, and mineral products, as well as dangerous goods such as weapons and drugs. Likewise, increasing controls on small scale traders can raise the costs of locally traded agricultural products thus in turn incentivizing more smuggling.³². Cracking down on such ICBT may raise tensions and undermine the security situation.

Actors engaged in and motivation for ICBT

- 106. **Traders engaged in ICBT are often small scale businesses or individuals.** They trade small quantities of locally produced goods, such as agriculture and processed food, or consumer goods made elsewhere. In many cases, local traders depend on serving larger population centers across the border rather than distant domestic population centers. However, while such informal trade plays a vital role for many border communities, there is also evidence of large traders engaged in ICBT, particularly through local brokers that can arrange the shipment of various kind of goods in larger volumes through informal channels.
- 107. Non-state armed groups have in the case of the land borders with Thailand and China a particular role as the operators of unofficial border crossing facilities (e.g. clandestine through-the-forest trade paths, unofficial toll roads or cross-border boat service) (EIA, 2015). They are also reportedly involved in transporting and facilitating the trade of illicit goods (e.g. military equipment) illegal-but-licit goods with typically high value density (e.g. branded alcohol, cars).

³¹ World Bank (2016) and Set Aung (2011)

³² See, for instance, Set Aung (2011).

108. Border trade studies in Myanmar have identified different factors that have fueled informal trade. These include: (i) improved infrastructure at or towards the border (Winston Set Aung, 2011); (ii) political instability and conflict in the border areas (Winston Set Aung, 2011); (iii) Involvement of non-state armed groups in trade (e.g. DKBA in Karen State) as non-recognized actors of a parallel underground economy (Yu Yu Khaing, 2010); (iv) price and quantity restrictions on trade (i.e. price ceilings and floors, quotas) (Winston Set Aung, 2009); (v) circumvention of previous "export first policy" and onerous trade licensing regimes (Winston Set Aung, 2011; Mya Than, 2005; Yu Yu Khaing, 2010); and (vi) evasion of trade taxes and duties (Winston Set Aung, 2011; Yu Yu Khaing, 2010).

The potential scale of and foregone government revenue from ICBT

- 109. Mirror trade data analysis is commonly used as a starting point for examining the potential scale of ICBT. This approach matches a country's data on export flows with data recorded by the trading partner on corresponding import flows (and a country's data on import flows with data recorded by the trading partner on corresponding export flows). The difference in corresponding trade data between two trading partners could signal informal trade.
- 110. Discrepancies in corresponding trade reported between Myanmar and neighboring countries however do not necessarily imply ICBT, but could be due to a number of other factors, including (Cantens, 2015): (i) incorrect tariff classification; (ii) time lags due to the timespan of the cross-border transshipment or delayed data recording; (iii) errors in the indicated provenance or destination; (iv) erroneous currency conversion; (v) confusion of CIF and FOB figures; and (iv) incorrect reporting of transit trade. There may however be systematic discrepancies that point to potential issues for further investigation. This exercise is thus much more indicative than definitive.³³ In addition, the measures below are for total trade between Myanmar and selected neighboring countries, as opposed to the narrower category of border trade, to which we come back later.
- 111. Mirror trade data shows that Myanmar's imports from China and Thailand tend to be underreported, and the level in underreporting has likely increased in the past 10 years (Figure 65 and Figure 66). In 2014, Myanmar reported close to US\$5 billion in imports from China, whereas China reported over US\$9 billion exports to Myanmar. In the case of Thailand, Myanmar reported US\$1.6 billion in imports in 2014 compared to over US\$4 billion in corresponding exports reported by Thailand. These results are roughly consistent (though inverted in terms of level of underreporting from China and Thailand) with an earlier study, which estimated that 41% of imports from China and 60% of imports from Thailand had been undocumented (Set Aung, 2009).

³³ It is also worth adding that while most mirror trade studies compare data reported in Comtrade, the UN compiled international trade database, it is not possible for Myanmar, whose data are not reported there. We thus use Ministry of Commerce data on the Myanmar side and Comtrade data for Thailand and China.



Source: UN Comtrade, MOC, and WB Staff estimates

112. It is useful to have a more granular look on the products on which those discrepancies stem from. Severe data limitations prevent a very detailed analysis of the decomposition: data on Myanmar was not available by Harmonized System (HS) classification but a "Principal Commodity" decomposition, with categories which are not always easy to match to those of trading partners.34 Product categories were manually matched, with potential differences. The product breakdown of Myanmar's imports from China (and corresponding Chinese exports to Myanmar) points to a number of products that make up an important share of the underreporting. These include electrical machinery, fabric, chemicals, rubber and plastic. Another major item that is reportedly imported informally in relatively large scale is fertilizer (Figure 67).



Figure 67: Selected products imported by Myanmar/exported by China (US\$ m)

³⁴ Hamanaka and Tafgar (2010) faces similar difficulties in the case of Laos.



Source: UN Comtrade, MOC, WB Staff estimates

- 113. Data constraints aside, the general tendency to underreport imports may reflect efforts to evade trade related taxes. Data on customs receipts show that official imports have evolved more quickly than customs receipts. Interestingly, the gap is bigger for normal trade, than it is for border trade (Figure 68 and Figure 69). Though in both cases, customs receipts are on average relatively inelastic (i.e. customs receipts growing on average at a lower rate than imports) despite ongoing customs reforms.
- 114. This could be linked to declining tariffs or exemptions on customs duties, particularly for new investments. Until recently, all new foreign investments approved by the Myanmar Investment Commission were exempt from customs duties in the project establishment phase (see section on fiscal policy). Most investment-related imports would likely come through shipment rather than overland border, which may also explain faster growing gap between import growth and customs collections relative to border trade.



Sources: CEIC, CSO, WB Staff estimates

115. Available data for border trade only between Myanmar and Thailand (i.e. excluding other forms of trade reported in UN Comtrade) also reveals potentially significant underreporting on the Myanmar side. The data shows that Thailand reports US\$2 billion more of exports to Myanmar per year than what Myanmar is reporting as imports from Thailand (Figure 70). Notwithstanding household level welfare and broader conflict-related links discussed above, this is a potentially significant loss of revenue to the exchequer. On the Thai side, the VAT refund for exports could be one factor that explains the higher reporting on exports.



Sources: MOC, <u>http://bts.dft.go.th</u>, Bank of Thailand, WB Staff estimates Note: 2016-2017 data is for the first 5 months of the fiscal year only

- 116. Unlike imports into Myanmar, there is little discrepancy in terms of reporting on exports from Myanmar to Thailand (and corresponding reporting on imports) (Figure 71). Traders indicated that given the nature of export products (e.g. perishable agricultural produce, seafood), they preferred the formal gateways through the customs processing zone and across the border bridge in Myawaddy compared to dirt roads.
- 117. UN Comtrade data also indicate less reporting discrepancy on Myanmar's exports to Thailand (Figure 72), though inconsistencies remain in the case of exports to China (Figure 73). After excluding outlying gems exports from China (which are underreported), there is almost US\$2.5 billion of exports that is not reported in China's imports. It unlikely that under-invoicing would be a considerable factor for products entering China. Instead the "loss of value" of exports from Myanmar is likely to be due to the informal imports into China (but formal export from Myanmar) of rice, corn and sugar.



Sources: UN Comtrade, MOC, WB Staff estimates

Policy options for managing ICBT

- 118. Whilst there is little doubt of the merits in bringing all traders into the formal sphere, the reality on the ground in Myanmar makes this quite complex thereby favoring a step-by-step approach. A heavy handed approach to curbing ICBT would have negative socio-economic and security implications. Plus implementing international standards for goods clearance at remote border checkpoints will require significant capacity building. Additionally, it will take time for Quarantine and other border management agencies to design and implement a sound risk management regime for the inspection of agricultural goods and food products. At the same, international experience suggests possible policy options that could gradually help formalize ICBT. ³⁵
- 119. The government could simplify documentation and procedural requirements for cross-border trade by registered traders for an approved list of locally produced goods that fall below certain thresholds of value or volume. A flat import duty could also apply on certain low value products to avoid long and complex administrative processes associated with valuation. This would allow border agencies to allocate more resources to address issues pertaining to smuggling of commercial and prohibited goods while focusing appropriate attention on facilitating traders engaged in larger scale formal trade.
- 120. Piloting a "Charter for Cross-Border Traders" such as the one implemented by Malawi and Zambia.³⁶ Facilitating formal trade works best if there is trust between officials and traders over rules and procedures to manage border trade. All stakeholders need to know their roles, rights and responsibilities, and there should be a mechanism for traders to abuse of power. Likewise, officials need to demonstrate high levels of integrity, act with fairness and be subject to appropriate supervision and accountability.

³⁵ Wulf (2011) in Mc Linden et.al (2011), Brenton et.al (2014)

³⁶ See Brenton et.al (2014)

- 121. Reviewing and streamlining procedures and utilizing ICT to help lower the compliance costs faced by traders. This can be done gradually as it needs to be undertaken in tandem with capacity building of officials responsible for cargo processing and clearance and the inspection of cargo. Attention to disseminating accurate information on regulations and procedures to small scale traders can also help to improve transparency and procedural certainty.
- 122. Avoid using processing and inspection fees to increase revenue collection. While many unscrupulous traders will attempt to smuggle goods to avoid paying Customs duty and other taxes other traders engage in ICBT simply to avoid formal documentation requirements, uncertainties in valuation and import duty calculation, as well as time consuming and costly inspections. With limited capacity to correctly classify goods under the Harmonized System (HS), a focus on maximizing revenue collection can serve only to encourage traders to circumvent formal channels.
- 123. These options could also be accompanied by consumer awareness campaigns and more intensive activities to identify and control prohibited or controlled products. Relevant agencies, such as the Food and Drug Agency and Department for Consumer Protection, could launch a campaign to increase awareness and better educate consumers on the risks associated with unsafe imported goods, which often enter the country through ICBT.
- 124. At the same time, border management agencies could strengthen their capacity to conduct domestic surveillance at markets and retail outlets to provide a secondary check on goods to determine on the legality of products sold in their stores. Such an approach raises the probability of detection and increases the risk that goods entering the market through informal channels will be identified and seized. Investing in compilation and reporting of border trade flows at HS level on both side of the border could also enable closer scrutiny and follow up on discrepancies.

Protecting priority public spending from gas revenue volatility

Gas revenue in the Union Budget

- 125. Managing potential gas revenue volatility can be important for fiscal prudence and public investments. Gas receipts account for an important share of Union Budget (general government) revenue. They are also vulnerable to shifts in production, changes in prices, and exchange rate volatility. In the short to medium-term, revenue windfalls that spur higher expenditure could raise fiscal sustainability concerns. Conversely, optimistic forecasts can create unfunded commitments that require budget adjustments.
- 126. **Myanmar is well endowed with natural resources and is the largest natural gas exporter in South East Asia.** Proven natural gas reserves are estimated at 18.7 trillion cubic feet in 201537, which are a relatively small share of global reserves at 0.3 percent. Despite the small share of global reserves, Myanmar plays a significant in the regional South-East Asian gas market accounting for close to 50 percent of natural gas pipeline exports in the region.³⁸

³⁷ "BP Statistical Review of World Energy 2016", Accessed November 2016.

³⁸ Ibid

- 127. The natural gas sector is a significant contributor to union government revenues, through royalties and state participation in production through SEEs. They are conservatively estimated at an average of 2 percent of GDP per year, or between 15 and 20 percent of Union Government revenues, between 2013-2014 and 2015-2016. Although tax receipts excluding gas and one off-payments are able to cover non-discretionary expenditure (wages, interest, pension), this are still an important share.
- 128. Myanmar's fiscal regime for natural gas is governed through Production Sharing Contracts (PSCs) and its fiscal provisions are consistent with other oil and gas producing countries. Myanmar's PSC structure, features the following sources of government revenues, which are, as per good international practice, a mix of regressive (not linked to prices and production) and progressive (linked to production and prices) revenue sources: (i) Royalties, which are payable on production; (ii) Profit share of overall gas production net of cost recovery; (iii) Corporate taxes, which are payable on profits; and (iv) Dividends accruing from participation of SEEs such as the Myanmar Oil and Gas Enterprise (MOGE) as a partner for private firms.
- 129. The structure of the PSC and the rates of cost recovery, profit share and corporate taxes are also consistent with other oil and gas producing countries.³⁹ However, this does not imply that government revenue take, as a share of value of gas production, is currently optimal in Myanmar. Further analysis needs to be conducted in regard to benchmarking and optimizing revenue collection from natural gas, especially in regard to state participation through SEEs.

Gas revenue volatility

- 130. Natural resource revenues can pose particular challenges for fiscal management on account of their volatility and exhaustibility. Myanmar's gas revenues have in the past been impacted by global price shocks, such as the fuel price crisis in 2008 and the subsequent collapse of prices in 2009. The price of Myanmar's gas exports is indexed to heavy fuel and a variety of production cost indicators. Price is adjusted every quarter by taking the last 12 months' average of these variables. This can help smooth short-term volatility. This has also meant a lagged impact of the sharp drop in oil prices in the summer of 2015 on gas receipts in Myanmar.
- 131. Data from the last three fiscal years suggest a consistent overestimation of gas receipts in the Union Budget. With data constraints, tax payments and contributions from state participation in the gas sector through MOGE was on average overestimated by around 30 percent in the Union Budget (Figure 74). This would have contributed to a 5-6 percent decline between budgeted revenue and actual. At the same time, however, tax receipts net of MOGE's tax payments and one payments (e.g. license fees) were underestimated by on average 60 percent per year over the past three fiscal years (Figure 75). This in turn would have added 30-40 percent more revenue.
- 132. Since over-realization of regular tax revenue offset any under-realization in gas receipts, the latter did not necessitate overall expenditure adjustments in the Union Budget. As it happens, the government did under-execute on recurrent expenditure (Figure 76), and on capital expenditure in the last two fiscal years (Figure 77), which led to lower fiscal deficits ex-post. The under-execution is reportedly linked in part to absorptive capacity constraints.

³⁹ "Economic Costs of Natural Gas for Myanmar Domestic Market" (World Bank, Forthcoming) and IMF, 2015.



Sources: MOPF, WB Staff estimates

- 133. At the same time, with persisting differentials in gas revenue forecasts, and very gradual improvements in regular tax forecasts, the last two fiscal years have also experienced cuts to capital expenditure. This is not necessarily due to lower gas receipts. But all other things equal, recent volatility between budgeted and actual gas receipts could affect the quality of public investment. Preliminary findings from World Bank research highlights that the average annual disbursement rate for large capital projects in Myanmar is less than 7 percent, which is driven in part by in-year reductions to budget allocations.
- 134. It is important to consider the impact of gas revenue volatility specifically on capital investments. Gas revenue are derived from a national asset, and is therefore almost like a capital receipt or financing item for creation of another asset. Myanmar has significant short term infrastructure needs Channeling exhaustible resources to productive assets to fill these gaps is a sound trade off compared to saving them for future generations.

Fiscal policy options

- 135. The government's evolving Medium-Term Fiscal Framework provides a good basis to manage the impact of resource revenue volatility. As a first step, the government could consider integrating gas revenue forecasts in its MTFF. This could help assess the impact of different price, production and exchange rate assumptions on gas revenues, and the resulting implications for spending adjustments and financing options to maintain overall fiscal discipline. Publishing these forecasts and underlying assumptions could be an important contribution to ongoing fiscal transparency efforts.
- 136. Secondly, the government could target fiscal benchmarks to guide medium-term budgetary aggregates. These are not legally binding, unlike some more formal fiscal rules. Several resourcerich have experimented with fiscal rules to promote fiscal discipline, but have met with mixed success⁴⁰ -- they are seen to be effective in countries with already strong fiscal discipline but are less effective in constraining spending in others. Furthermore, in countries with limited data and lack of precise forecasting, as in Myanmar, a rigid fiscal rule may result in inappropriate fiscal policy responses.
- 137. As an example, one benchmark could be limits on the growth of recurrent expenditure. This could help control the increase in non-discretionary spending in particular. In Myanmar, the main challenge with this approach is that capital and recurrent expenditures are at times incorrectly classified. Therefore this benchmark could limit critical capital spending in the future.
- 138. Another option could be to target the non-oil and gas balance, which is defined as expenditures minus non-oil and gas revenues. This would involve targeting a specified non-oil and gas balance level over the MTFF forecast period with the level set to ensure that the non-oil and gas balance can be financed in a sustainable manner. Any increase in expenditure or decrease in non-oil and gas revenue that increases the balance above the target level, should, therefore, necessitate an expenditure cut.
- 139. Conceptually, this involves treating the oil and gas revenues as below the line financing of the non-oil and gas primary balance. This does not necessitate management of funds separate from the budget -- but simply a strong fiscal commitment to maintain the non-oil and gas primary balance at or close to the target level. This option is feasible in Myanmar, especially if integrated with the MTFF.
- 140. Finally, there has also been discussion on the establishment of a stabilization fund, which would be used to mitigate the impact of short term resource-revenue volatility through deposit and withdrawal rules. These rules are linked to certain "triggers", usually resource price or resource revenue collected, which ensure a smooth profile of resource revenue on budget a typical example is as follows: if actual gas price is higher than the expected 'trigger' gas price, any revenues associated with the excess gas price are deposited into the fund and not the budget; If actual gas price is lower than the expected 'trigger' gas price, any associated revenue shortfall in budget is covered by revenues withdrawn from the stabilization fund.

⁴⁰ For a comprehensive survey, see "Fiscal Management in Resource-Rich Countries" (Halland and Ossowski, World Bank, 2016).

141. Stabilization funds are widely used in resource-rich countries, but, as with fiscal rules, with mixed success – with several countries facing the prospect of these funds being depleted quickly.⁴¹ Some of the issues countries have faced in managing these funds include: Inaccurately forecasting resource prices and setting an appropriate trigger, owing to the volatility in prices, leading to triggers being set too low or too high over a period of time; Lack of fiscal discipline which has led, in some countries, to insufficient revenue deposited in the stabilization fund when prices are high; Limited capacity and transparency in PFM systems to manage budget, stabilization fund and interface between the two. These are issues that may need to be addressed if Myanmar decided to pursue a stabilization fund over the medium-term.

⁴¹ See Halland and Ossowski (2016) for detailed survey of country experiences.

	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
Output and prices							
Real GDP (% change)	8.4	8.0	7.3	6.5	6.9	7.2	7.3
CPI (% change, Period average)	5.7	5.9	11.4	8.9	6.3	5.7	5.5
Public sector (% of GDP)							
Revenue	20.2	22.3	19.9	16.8	16.7	16.3	16.8
Union Government	10.2	12.4	12.4	9.6	9.6	9.5	10.2
Expenditure	21.7	23.4	23.2	21.3	20.5	19.6	19.9
Union Government	13.1	14.6	15.1	13.9	13.5	13.1	13.4
Balance	-1.5	-1.1	-3.2	-4.5	-3.8	-3.3	-3.1
Public debt	34.2	29.5	33.8	33.8	33.8	34.3	34.7
Money and credit (% change)							
Reserve money	16.0	5.0	20.0	13.4	9.7	9.4	10.5
Net claims on Government	6.6	13.5	31.5	24.5	12.8	10.0	6.0
Broad money	32.7	19.6	23.2	20.8	16.5	18.6	18.0
Private sector credit	52.5	36.5	34.0	21.0	19.0	25.0	24.0
Balance of payments (% of GDP) ¹							
Current account balance	-4.9	-3.3	-4.8	-6.7	-6.8	-6.7	-6.6
Trade balance	-5.1	-6.3	-8.6	-10.2	-10.4	-10.4	-10.2
Financial account	7.4	7.1	6.6	6.5	7.8	8.1	8.3
FDI (net)	4.4	7.1	6.6	5.9	6.4	6.7	6.9
Overall balance	2.0	1.8	-0.7	-0.3	1.0	1.3	1.8
Memo item							
Nominal GDP (Kyat billion)	58,012	65,262	72,780	84,745	98,007	113,013	129,792

Table 8: Key Economic Indicators 2013/14 – 2019/20 (% of GDP)

Sources: MOPF, CSO, CBM, IMF BOP Statistics, WB Staff estimates

1/ Preliminary IMF estimates subject to change

	2013/14 PA	2014/15 PA	2015/16 PA	2016/17 BE	2017/18 P	2018/19 P	2019/20 P		
Consolidated Public Sector									
Revenue	20.2	22.3	19.9	16.8	16.7	16.3	16.8		
Expenditure	21.7	23.4	23.2	21.3	20.5	19.6	19.9		
Recurrent	14.0	16.4	17.0	16.1	15.5	15.0	15.1		
Capital	7.6	6.9	6.2	5.2	4.9	4.7	4.8		
Balance	-1.5	-1.1	-3.2	-4.5	-3.8	-3.3	-3.1		
Net Financing	1.5	1.1	3.2	4.5	3.8	3.3	3.1		
Domestic	1.3	1.2	3.0	3.9	2.3	1.7	1.2		
External	0.5	0.3	0.6	1.1	1.5	1.7	1.9		
Other	-0.3	-0.4	-0.4	-0.5	0.0	0.0	0.0		
SEE Operations									
Revenue	13.0	12.6	10.1	9.1	8.9	8.6	8.2		
Net of transfers to UG	10.0	9.8	7.6	7.3	7.1	6.8	6.6		
Expenditure	11.6	11.5	10.6	9.3	8.8	8.3	8.1		
Recurrent	9.6	9.9	9.3	8.1	7.7	7.2	7.1		
Net of transfers to UG	6.6	7.2	6.7	6.3	5.9	5.5	5.5		
Capital	2.0	1.5	1.3	1.2	1.1	1.0	1.0		
SEE Balance	1.4	1.1	-0.5	-0.2	0.1	0.3	0.1		
		Union Go	overnment						
Revenue	10.2	12.4	12.4	9.6	9.6	9.5	10.2		
Тах	7.7	10.0	8.7	7.7	7.9	7.9	8.7		
o/w Income	3.1	3.4	3.2	3.2	3.3	3.6	4.1		
o/w Commercial	2.9	2.8	2.9	2.6	2.7	3.0	3.4		
Non-Tax	2.4	2.2	3.4	1.4	1.3	1.2	1.2		
Grants	0.1	0.3	0.3	0.4	0.4	0.4	0.4		
Expenditure	13.1	14.6	15.1	13.9	13.5	13.1	13.4		
Recurrent	7.4	9.3	10.3	9.8	9.7	9.5	9.6		
Wages	1.5	1.7	2.2	2.0	1.9	2.0	2.1		
Transfers	1.0	2.6	2.7	2.4	2.2	2.0	1.9		
Interest	1.1	1.1	1.0	1.1	1.3	1.4	1.4		
Other	3.8	3.8	4.4	4.3	4.2	4.1	4.1		
Capital	5.7	5.4	4.9	4.0	3.8	3.7	3.8		
Union Government Balance	-2.9	-2.2	-2.8	-4.3	-3.9	-3.7	-3.2		
Recurrent Balance	2.8	3.2	2.1	-0.3	-0.1	0.0	0.7		
Primary Balance	-1.8	-1.1	-1.8	-3.2	-2.6	-2.3	-1.8		

Table 9: Fiscal operations 2013/14 – 2019/20 (% of GDP)^{1, 2}

Sources: MOPF, WB Staff estimates

1/ BE = Budget estimates; P = Projections

2/ Union Government is the equivalent of General Government. SEE operations are equivalent to public sector financial and non-financial corporations. The consolidated public sector aggregates Union Government and SEE operations (netting out SEE payments to the Union Government).

3/ Excludes military wages, which are captured in "Other" recurrent expenditure.

References

Aga, G and Francis, D. (2015) "As the Market Churns: Productivity and Firm Exit in Developing Countries", World Bank Policy Research Working Paper 7218

Aga, G and Francis, D. (2015) "As the Market Churns: Productivity and Firm Exit in Developing Countries", World Bank Policy Research Working Paper 7218.

Aga, G, D. Francis, and J. Rodriguez Meza (2015) "SMEs, age, and jobs : a review of the literature, metrics, and evidence," World Bank Policy Research Working Paper 7493.

Ayadi, Lotfi; Benjamin, Nancy; Bensassi, Sami and Raballand, Gaël, 2013: Estimating Informal Trade across Tunisia's Land Borders, The World Bank, Policy Research Working Paper 6731, December 2013

Brenton, Paul Nora Dihel, Mombert Hoppe, Carmine Soprano, 2014. "Improving Behaviour at Borders to Promote Trade Formalization", The World Bank, Africa Trade, Policy Note no. 41.

Bua, G; Pradelli, J; Presbitero, A, "Domestic Public Debt in Low-Income Countries," World Bank Policy Research Working Paper 6777 (February 2014)

Cantens, T, "Mirror Analysis and Revenue Fraud," WCO Research Paper No. 35 (April 2015)

Chutasripanich and Yetman, "Foreign exchange intervention: strategies and effectiveness," BIS Working Papers (March 2015)

Collier, P; Hoeffler, A, "Aid, Policy and Growth in Post-Conflict Countries," World Bank Conflict and Prevention Unit (2002)

Colliers International, "Half-yearly Review: Yangon Office H1 2016," (August 10, 2016)

Davis, Steven J., John C. Haltiwanger, and Scott Schuh (1996) "Small Business and Job Creation: Dissecting the Myth and Reassessing the Facts," Small Business Economics 8:4 (1996b), 297–315.

1Easterly, W; Schmidt-Hebbel, K, "The Macroeconomics of Public Sector Deficits: A Synthesis," World Bank Working Paper 0775 (October 1991)

EIA, 2015: Organised Chaos; the illicit overland timber trade between Myanmar and China, UK, September 2015

Fitzgerald, J., Gottschalk, P. and Moffitt, R. (1998). "An Analysis of Sample Attrition in Panel Data: The Michigan Panel Study of Income Dynamics". The Journal of Human Resources.

Frazer, G. (2005) "Which Firms Die? A Look at Manufacturing Firm Exit in Ghana" Economic Development and Cultural Change, 53(3), 585-617.

Gupta, S. et al, "Expenditure Composition, Fiscal Adjustment and Growth in Low-Income Countries," IMF Working Paper WP/02/77 (April 2002)

Gupta, S. et al, "Expenditure Composition, Fiscal Adjustment and Growth in Low-Income Countries," IMF Working Paper WP/02/77 (April 2002)

Hamanaka, Shintaro, and Aiken Tafgar (2010). "Usable Data for Economic Policymaking and Research? The Case of Lao PDR's Trade Statistics," Working Paper No. 8710. Asia-Pacific Research and Training Network on Trade (ARTNeT), UNESCAP

Haltiwanger, J., R. Jarmin, and J. Miranda (2013) "Who Creates Jobs? Small vs. Large vs. Young." *Review of Economics and Statistics* 95(2): 347-361.

Hausmann, R., CA. Hidalgo, S. Bustos, M. Coscia, S. Chung, J. Jimenez, A. Simoes, M. Yildirim. (2011), *The Atlas of Economic Complexity*. Puritan Press. Cambridge MA.

Hufbauer, Gary, Jeff Schott and Kimberly Elliott (2009), *Economic Sanctions Reconsidered*, PIIE Editions, 3rd ed

IMF, Article IV Staff Report for Myanmar (October 2015)

Konings, J., H. Lehmann, and M. Schaffer (1996) "Job Creation and Job Destruction in a Transition Economy: Ownership, Firm Size, and Gross Job Flows in Polish Manufacturing 1988-91." *Labour Economics* 3(3): 299-317.

Kubo, K., 2012: Trade Policies and Trade Misreporting in Myanmar, Institute of Southeast Asian Studies, ASEAN Economic Bulletin, Volume 29, Number 2, August 2012

Kudo, Toshihiro, 2010: Myanmar's Border Trade with China: Situation, Challenge and Prospects, BRC Research Report No.3, Thailand, 2010

Kudo, Toshihiro; Mieno, Fumiharu, 2008: Trade, Foreign Investment and Myanmar's Economic Development during the Transition to an Open Economy, IDE DISCUSSION PAPER No. 116, 2007-2008

Li, Yue; Rama, M (2015), "Firm Dynamics, Productivity Growth and Job Creation in Developing Countries: The Role of Micro- and Small Enterprises" Background Paper for the World Development Report (2013)

Luc, de Wulf, 2011, "Border management consideration in fragile states." In Mc. Linden, Gerard, Enrique Fanta, David Widdowson, Tom Doyle (eds.). "Border Management Modernization". The World Bank, Washington, DC

Macamo, Jose Luis, 1999: Estimates of Unrecorded Cross-Border Trade Between Mozambique and Her Neighbors ,World Vision International – Mozambique ,Technical Paper No. 88, June 1999

Maimbo, SM; Gallegos, CAH, "Interest Rate Caps around the World: Still Popular, but a Blunt Instrument," World Bank Policy Research Working Paper 7070 (October 2014)

Martin, Michael F. (2013), "U.S. Sanctions on Burma: Issues for the 113th Congress," Congressional Research Service Report, 7-5700

Minde, I.J.; Nakhumwa, T.O., 1998: Unrecorded Cross-Border Trade Between Malawi and Neighboring Countries, University of Malawi, Technical Paper No. 90, September 1998

Pivetz, T., M. Searson, and J. Spletzer (2001) "Annual Measures of Job Creation and Job Destruction Created from Quarterly Microdata." *Monthly Labor Review* April 2001: 13-20.

Reimeingam, M., 2015: Moreh-Namphalong Borders Trade, The Institute for Social and Economic Change, Bangalore, Working Paper 346, 2015

Set Aung, W, "Cross-border Trade in Myanmar," Institute for Security and Development Policy, Sweden, Asia Paper, September 2009

Set Aung, W, "Informal Trade and Underground Economy in Myanmar; Costs and Benefits", The Research Institute on Contemporary Southeast Asia, Thailand, Occasional Paper Observatory Series 04, 2011

Set Aung, Winston, 2011. "Informal Trade and Underground Economy in Myanmar." IRASEC Occasional Paper no.4

Soderbom, M., Teal, F., & Harding, A. (2006). "The determinants of survival among African manufacturing firms", Economic Development and Cultural Change, 54(3), 533–555.

Than, M, "Myanmar's Cross-Border Economic Relations and Cooperation with the People's Republic of China and Thailand in the Greater Mekong Subregion," (2005)

Tornqvist, L, P. Vartia and Y. Vartia, 1985, "How Should Relative Change Be Measured?" American Statistician, February 39(1): 43-46.

US Chamber of Commerce (2016), "US-Myanmar Commercial Relations: The Next Phase", (June 2016)

Wantanasombut, A, "The Ant Army: A Significant Mechanism of Thailand-Myanmar Illegal Trade (1988-2012)

World Bank (2015) Jobs and Privilege: Unleashing the Employment potential of the Middle East and North Africa, the World Bank

World Bank (2016) Myanmar Economic Monitor, May 2016, The World Bank

World Bank "Commodity Markets Outlook" (October 2016)

World Bank Group. 2015. "Myanmar Investment Climate Assessment: Sustaining Reforms in a Time of Transition." Washington, DC. © World Bank.

World Bank Group. 2016. "Myanmar Opening up for Business: Diagnostic Trade Integration Study". Washington, DC. © World Bank.

World Bank, "Debt Management Performance Assessment Tool," DPI-8, Domestic Borrowing (2009)

World Bank, "Energizing Myanmar: Enhancing Access to Sustainable Energy for All," (2016)

World Bank, "Myanmar Diagnostic Trade Integration Study: Opening for Business," (June 2016)

World Bank, "Rethinking the Use of Tax Incentives in East Asia and the Pacific – East Asia and Pacific Economic Update," (October 2015)

World Bank, International Monetary Fund, "Public Debt Vulnerabilities in Low Income Countries: The Evolving Landscape," (November 13, 2015)

World Economic Forum – Global Competitiveness Report

Yu Yu Khaing, 2010: Border trade patterns in Myawaddy Township, Kayin State, Myanmar. Chiang Mai: Chiang Mai University, 2010.