

rate of at least 11 per cent through 2030. This significantly exceeds the rate of investment growth between 2010 and 2015, which averaged 8.9 per cent annually. At the same time, the global environment, including the weak economy, low trade growth, soft commodity prices, volatile international capital flows, and the increase of geopolitical risks make raising long-term investment and increasing capital formation particularly challenging.

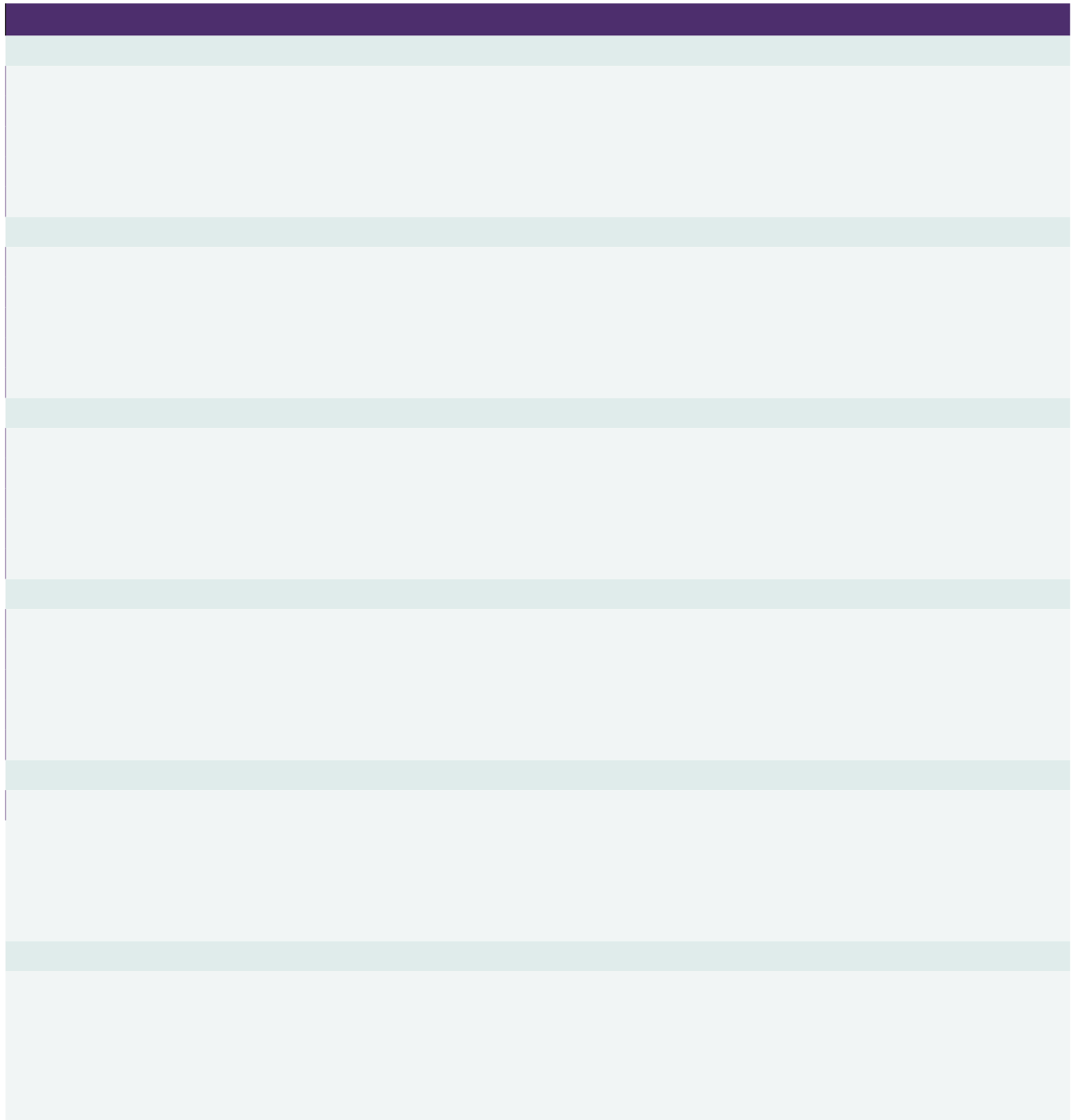
At the Third International Conference on Financing for Development in July 2015 in Addis Ababa, Member States of the United Nations agreed that both private sources of finance (including financial and direct investment) and public resources (including domestic and international) are necessary to achieve sustainable development and the SDGs. Public and private resources should not be seen as substitutes, as they have different investment objectives. For example, despite growing pockets of socially conscious and/or impact investors, most investors of private capital remain driven by a profit motive, and will underinvest in public goals when the expected financial return underperforms compared to other opportunities on a risk-adjusted basis.

Public goods, such as combating climate change, are generally not sufficiently incorporated into risk-return analyses by private investors, requiring policy intervention, such as carbon pricing or strengthened regulations. Investment in sustainable development is further challenged as many investors evaluate risk and return over a short-term horizon. This myopia leads to not only herd behaviour and volatility, but also failure to incorporate long-term risks, such as those associated with climate change, in investment decisions.

This short-term investment perspective is reflected in the behaviour of international capital flows, particularly commercial bank lending and portfolio flows from institutional investors. While there is much discussion on rising risk aversion and increasing volatility of capital, the data shows that, for the countries analysed, volatility has not increased compared to earlier decades and is still lower than that in past crisis periods (see the section on the analysis of volatility).

Rather, international capital inflows remain positive and net flows to developing countries are projected to remain positive at least through 2017.

Achieving the SDGs will require policies and regulatory frameworks that incentivize changes in investment patterns to better align investment with sustainable development. Despite the challenging global economy, public and private actions can effect change. Though still somewhat limited, there are ongoing efforts within the private sector to improve 1 Tf0 TAsonte



Nonetheless, compared to previous episodes of financial crises in emerging markets, high levels of international reserves and greater exchange-rate flexibility in many developing economies have provided a cushion in coping with the reversal in capital flows. The volatility of capital flows, while still high compared to the period before capital account liberalization, is below the volatility associated with earlier episodes in many countries (see the section on the analysis of volatility). It is unclear, however, whether all developing countries will be able to continue to smoothly manage such volatility, given their current rate of drawdown in international reserves and the potential for greater capital withdrawal when monetary policy normalizes in developed countries.

Specific national economic and political circumstances affect the cross-country distribution of these flows. East and South Asia drove the overall trend due to continued large outflows of portfolio and other investment, and growing net outflows of direct investment. While economies in transition also experienced net capital outflows, characterized both by low levels of direct investment and continued deleveraging, all other regions are estimated to have experienced positive net flows in 2016. The Africa region has had relatively stable total net inflows over the past three years, at about \$82 billion annually. Direct investment remained more or less constant, albeit at relatively low levels. Portfolio investment collapsed to net zero, but was offset by an increase in other investments, such as cross-border bank loans. West Asia and Latin America and the Caribbean also experienced positive inflows in 2016, though at a low level compared to the first half of the decade.

While table III.1 is based on net flows (inflows net of outflows), gross capital flows, by all indications, have increased in size, both nominally and as a proportion of GDP. The growing magnitude of both gross inflows and outflows reflects in part growing South-South flows (including outward foreign direct investment, as discussed below), as well as institutional developments such as the emergence of pension funds and sovereign wealth funds (SWFs) in some countries (IMF, 2016e).

Table III.1 shows that across regions, portfolio investments and other investments (mostly bank loans and currency/deposits, trade credits, and other equity) have been the largest source of outflows, as well as the most volatile. As shown in table III.1, foreign direct investment (FDI), which has generally tended to be relatively more stable than other flows, is estimated to have fallen significantly in net terms in 2016.

an expected pick-up in economic activity around the world should lead to higher levels of global FDI flows.

There are concerns, however, regarding the concentration and development impact of many forms of FDI. The large majority of FDI to developing countries continues to be channelled to Asia and Latin America. Developing Asia remained the largest FDI recipient region in the world in 2015 and will likely continue to attract large inflows, despite estimates of a net decline in 2016. During the past year, falling commodity prices have depressed foreign investment in natural-resource-based economies in sub-Saharan Africa and South America, limiting FDI flows to those regions (UNCTAD, 2016b).

Compared to their 2012 peak, 2015 net FDI flows were down nearly 11 per cent in Latin America and the Caribbean, but FDI inflows have stabilized at between 3.5 per cent and 3.7 per cent of GDP in the region. FDI to LDCs as a group increased in 2015 to \$35 billion on a gross basis, or 5 per cent of gross FDI to developing countries. This upturn was largely due to investment in one country, Angola, over three-quarters of which were loans provided by foreign parent firms to their Angolan affiliates. FDI to LDCs is estimated to decline in 2016 due to falling commodity prices leading to sluggish investment, along with cancellation of projects in a number of countries (UNCTAD, 2016b).

The Addis Ababa Action Agenda (AAAA) emphasized the importance of the quality of FDI, along with quantity, in supporting sustainable development. Current FDI patterns do not appear to be fully aligned with sustainable development. Greenfield investment tends to have a greater impact on jobs and development than other forms of FDI, but an increase in global FDI projected for 2016 is principally driven by a surge in cross-border mergers and acquisitions, which hit an all-time high in 2014. At the same time, FDI to LDCs and small island developing States (SIDS) remains concentrated in extractive industries; the number of investments in the natural resource sector in LDCs more than doubled in 2015 to reach a three-year high, while announced greenfield projects fell by 6 per cent (UNCTAD, 2016b).

In gross terms, FDI flows to developing economies amounted to \$765 billion in 2015, representing an increase of 9 per cent over the previous year, while outward investment from some developing and transition economies has been limited by weakening aggregate demand and declining commodity prices.

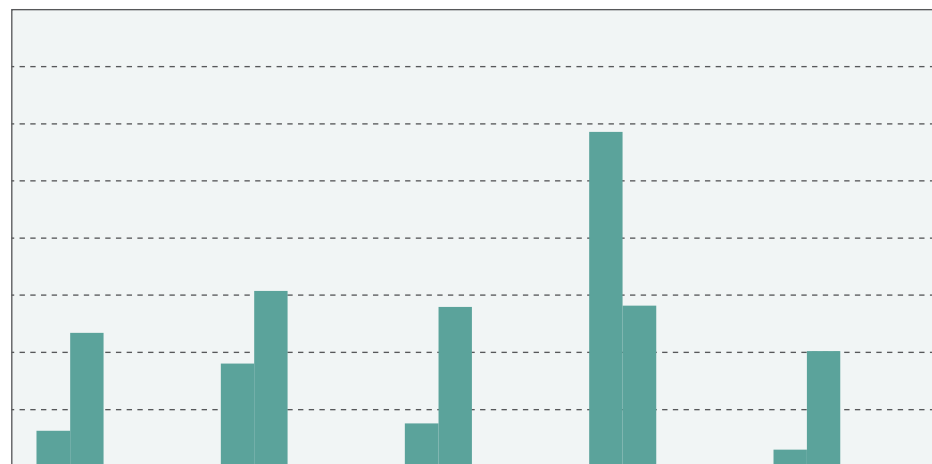
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at cross-country regressions on the impact of capital flows tend to use quarterly or annual data, often on a net basis (Ariyoshi and others, 2000; Broner and others, 2013). Rapid movements in capital can be masked, as sudden surges (withdrawals) in some months may be netted out by a slowdown (return of inflows) in the next month. To examine the volatility trends, analysis was conducted on five developing countries' capital flows for which monthly disaggregated data was available going back at least 12 years.

Figure III.5 shows the gross volume of different types of capital and financial market investment for five countries as a proportion of GDP, broken down by portfolio and other investment (primarily bank lending) and separated by domestic and international investors. In four of the countries, the volume of portfolio investment by non-residents is larger than the volumes by domestic investors, with the notable exception of Chile, where a relatively large private pension system means that investments by residents account for a larger component of capital flows. On the other hand, cross-border flows in the other investment category (largely bank lending) tend to have larger activity by resident actors, although in some countries, such as Poland, non-resident activity outweighs resident activity in this category, as it does in portfolio flows.

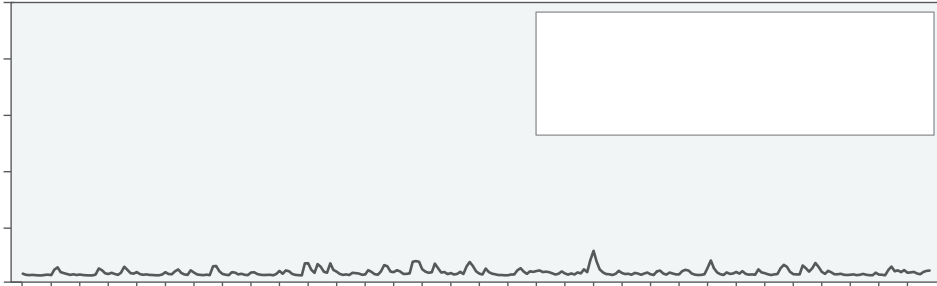
Figure III.6 shows volatility of portfolio investment and other investment, as measured by the conditional, time-weighted standard deviation,⁴ disaggregated by residents and non-residents, for four of these countries. The data available through 2015 shows that volatility levels, including through the periods of expectations of monetary policy normali-

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4 Use of standard deviation as a measure for volatility of capital flows is problematic because of illiquid markets, non-random behaviour by market actors, and heteroscedasticity – meaning the exhibition of non-uniform behaviour over time. These volatility estimates were generated using a database of monthly disaggregated capital flow data from national official sources. Instead of traditional standard deviations, an autoregressive model was specified and uses both values of past variances and the observations themselves to model the variance at a particular point in time. The generalized autoregressive conditionally heteroscedastic (GARCH) model uses both the lagged squared residual and the lagged conditional variance to estimate a time-weighted conditional standard deviation (Bollerslev, 1986).

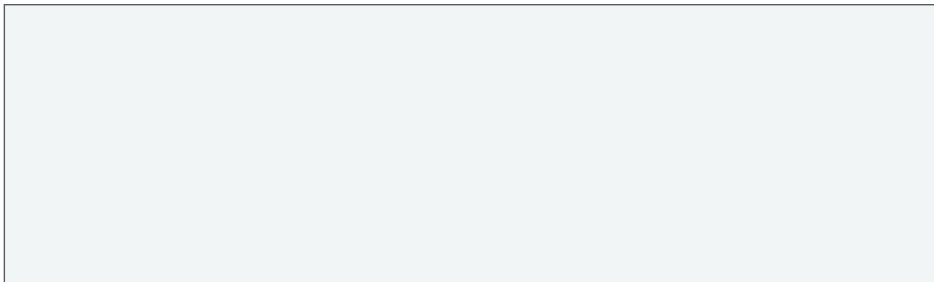
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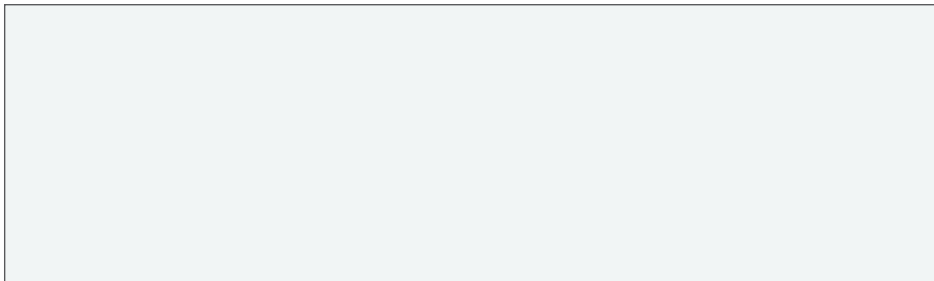
Philippines



Chile



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sation in the United States in 2014 and 2015, have remained low, and not reached the peaks seen at times of domestic financial crises in the past. While there is no discernible trend toward increasing volatility over time, there are persistent high volatility spikes at certain times and in certain countries.

The charts also show that volatility is often driven by global systemic risk. For example, volatility spiked across countries during the 1998-2000 emerging market crises and the 2007-2008 global financial crisis.⁵ However, other spikes in volatility correspond to idiosyncratic risks, based on domestic factors. For example, the notably high average number of months of elevated volatility of non-resident other investment in the Philippines, as shown in table III.2, corresponds to a prolonged bout of elevated volatility in 1999 and the early 2000s, which has diminish

Incentives to align institutional investment with sustainable development

Institutional investors have been looked to as a potential source of financing for sustainable development, both because of the size of assets under their management, and because of the long-term liabilities of some investors, which should enable the longer-term investment necessary for sustainable development. Around \$78 trillion of the total \$115 trillion in institutional investor assets at the end 2014 is held by “primary” institutional investors, such as pension funds, insurance companies, and sovereign wealth funds (SWFs), with long-duration liabilities (TheCityUK, 2015).

A reallocation of a small percentage of institutional investor assets, say 3 to 5 per cent, towards long-term investment in sustainable development could have an enormous impact. Yet, a shift of even this relatively small percentage will be extremely challenging. Indeed, it is unlikely to happen without a significant shift in behaviour, necessitating changes in both private actions and public policies. This is because the incentives in capital markets are not well-aligned with long-term investment or with sustainable development.

To date, investment by institutional investors in long-term illiquid assets necessary for sustainable development has been limited — in both developed and developing countries. For instance, direct investment in infrastructure globally represents less than 3 per cent of pension fund assets, with even lower allocations to infrastructure in developing countries and low-carbon infrastructure (Della Croce, 2012). This low level of investment reflects the duality of illiquidity of assets on the one hand and a short-term investment horizon of institutional investors on the other, as manifested in the volatility of international portfolio flows to developing countries, as well as in volatility in developed-country capital markets. In the United States, for example, the average holding period for stocks fell from about

ments, in theory, should be attractive to long-term funds from an asset-liability perspective, since the risks associated with climate change can be seen as a potential liability in the long run (Bolton and others, 2010).

Nonetheless, and despite their ability to arbitrage short-termism, most primary intermediaries have traditionally held relatively liquid portfolios. The largest pension markets hold 76 per cent of their portfolios in liquid assets (Willis Towers Watson, 2016). The majority of insurance assets are liquid securities, with 70 per cent in bonds and 10 per cent in equities in the United States (National Association of Insurance Commissioners, 2011), and 90 per cent in bonds, and 7 per cent in equities in Europe (Deutsche Bank, 2011). Many SWFs hold the bulk of their funds in liquid financial assets in the mature economies, with less than 5 per cent in direct investments (UNCTAD, 2013b). Since the financial crisis, however, an important trend has been a substantial increase in institutional investor allocation to less liquid alternative investments, particularly by pension funds. Allocations

agers to shift the portfolio towards a shorter horizon. Second, both long-term and riskier investments will have losses in the short-term. If trustees, senior managers, or in the case of public pension funds and SWFs, politicians, do not have appetite for short-term losses it will be difficult for managers to maintain longer-term positions. Third, the high mobility of portfolio managers between firms may represent a further disincentive to long-term investing, as managers can earn a high bonus, and then move to another firm before the “tail-risk” has materialized.

For instance, the average tenure of a chief investment officer of a public pension plan is four years, with even shorter periods for more junior staff (World Economic Forum, 2011). Finally, firm culture can affect investment strategies, including how fiduciary responsibilities and non-financial impacts are viewed and taken into account in performance evaluations of individual managers.

In addition, many managers lack in-house expertise in certain sectors, such as infrastructure and new technologies. Facing increased pressure to reduce costs, public funds are sometimes unable to pay salaries and bonuses that compete with other areas of finance. While this has benefits from the perspective of incentives as discussed above, it makes it difficult to attract the best talent and build expertise, especially in new areas. As a result many

formational investment. As can be seen from figure III.1.2, a large proportion of corporate debt in these countries was incurred by companies operating in utilities, (residential) construction, real estate, mobile communications and mining.

This use of debt-financing is indicative of a growing financialization trend in emerging-market corporations (UNCTAD, 2016a), emphasising short-term speculative over longer-term productive profit and investment strategies.

Regional patterns of corporate indebtedness, and of its sources, have varied. While in Brazil, India and Mexico, the ratio of corporate debt to GDP has increased steadily over the past two decades, other major developing economies, in particular in East and South-East Asia, have experienced a more recent but steep increase in this ratio, following a period of decline. Similarly, domestic bank lending has been more prevalent in East and South-East Asia, whereas bond financing in international financial markets and cross-border bank lending have played a larger role in Latin American economies.

Spiralling corporate indebtedness in China has attracted the most attention more recently, reach

It can also be included in the financial governance architecture. For example, the Central Bank of Brazil focuses on socio-environmental risk management flows as part of its core functions as a prudential bank regulator; the Bangladesh Bank supports rural enterprises and green finance; and the Bank of England has a prudential review of climate risks for the United Kingdom's insurance sector based on a connection between its core prudential duties and the United Kingdom Climate Change Act (for example, see UNEP, 2016 and 2015).

Trends in public resource flows

Public sources of financing are indispensable to making progress in key areas of sustainable development. It is primarily the public sector that addresses unmet social needs of the population, takes action to relieve poverty, finances health care and education for all, and provides funding for infrastructure investments and basic research. In most countries, these tasks are overwhelmingly funded through public domestic resource mobilization.

In addition, from a broader perspective, public spending can be employed to promote equity and stability in a country, which are widely considered to be among the core functions of the state. Therefore, domestic resource mobilization to finance their provision is also important for the state's legitimacy.

At the same time, developing countries and LDCs, land locked developing countries, SIDS and conflict-affected countries in particular — also rely on ODA and other external sources to finance public expenditure. In the LDCs for example, concessional public finance represents over 70 per cent of all external financing available to close the savings gap (OECD, 2014).

As noted in the AAAA, international public finance complements efforts by developing countries to raise such resources domestically. In addition, international public finance has an important role to play in financing global public goods. The provision of international public finance, including ODA from Members of the OECD Development Assistance Committee (DAC) and lending by MDBs, has increased between 2014 and 2015 (see the section on the provision of international public finance), continuing a rising trend since the turn of the millennium.

In addition, the provision of international public finance from developing countries — in the form of South-South cooperation and more recently through the establishment of two new development banks — has risen commensurate with rapid growth in developing countries. Despite this expansion, international public financial flows remain insufficient to fill the financing gap for public investments in sustainable development, particularly in developing countries with limited ability to increase domestic resource mobilization (see the section on cross-border aid flows). Partly in response to this shortfall, and partly due to the favourable financing conditions, developing countries have also increased borrowing from capital markets. Sovereign bond issuances in particular have increased significantly, raising concerns over debt sustainability (see the section on debt and debt sustainability).

Provision of international public finance

ODA from Members of the OECD DAC amounted to \$131.6 billion in 2015, representing an increase of 6.9 per cent in constant prices and exchange rates (“real terms”) over 2014. Additional spending on refugees reported as ODA accounts for a major share of this increase. Stripping out funds spent on refugees, 2015 aid increased by 1.7 per cent in real

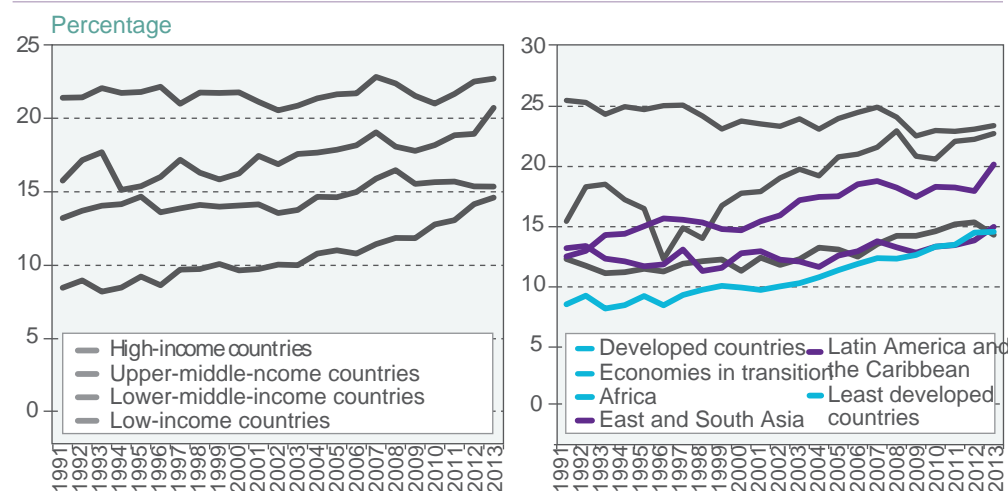
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Asian Infrastructure Investment Bank (AIIB) are not included in the diagram, as they did not approve any lending in 2015.⁷

The AAAA stresses that MDBs should make optimal use of their resources and balance sheets, and should update and develop their policies in support of the 2030 Agenda. Most MDBs are leveraged at close to their operational limits and there is an ongoing discussion

by LDCs to markets is much more limited. Gross sovereign borrowing from capital markets

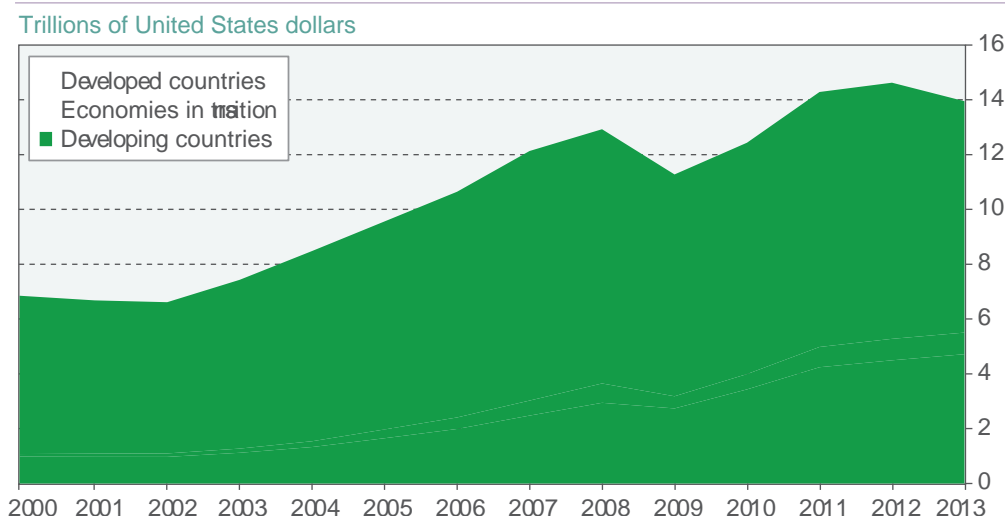
Figure III.14
Median tax revenue as a share of GDP by various country groupings, 1991–2013



Source: UN/DESA calculations, based on Prichard and others (2014).

Note: Tax revenue excludes social contributions. In the left panel, the World Bank's income classification for 2016 is used. In the right panel, country classification is based on UN conventions, with Western Asia excluded due to lack of data.

Figure III.15
Aggregate global tax revenue, 2000–2013



Source: UN/DESA, based on IMF (2015, 2016d).

Note: Estimates of nominal tax revenue in current prices and dollars, not adjusted for inflation.

of implementation and the ability of developing countries to benefit from the changes (United Nations, 2016a). Exchange of tax information related to financial accounts and country-by-country reports from multinational enterprises are being pursued through multilateral instruments. Developing countries may be disadvantaged in gaining access even if they sign the instruments. Further consideration is being given to the exchange of beneficial ownership information among tax authorities, but no standard or multilateral accord has yet been developed.

Debt and debt sustainability

Debt financing is an important source of financing for sustainable development investments, both by public and private actors. Global gross debt reached a record \$152 trillion,

Table III.3
Tax revenue by region, 2013

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or 225 per cent of WGP, in 2015, two-thirds of which are liabilities by the private sector. Such debt levels can carry risks for economic growth prospects and financial stability, particularly in developed and some emerging market economies (IMF, 2016c). The challenge will be to take advantage of fiscal space where it exists in developed and developing economies to finance necessary public investments, and to minimize the impact of private sector deleveraging on growth, while also ensuring that investments financed out of additional borrowing are productive and contribute to sustainable development.

The global debt build-up was primarily driven by the credit boom and household and corporate borrowing in developed countries prior to the global economic and financial crisis. Public debt ratios barely increased in developed countries and decreased in developing countries over the period 2000 to 2008. However, public debt increased significantly following the crisis, in both developed and developing economies, while progress on private sector deleveraging in developed countries has been uneven.

Developing countries' external debt is estimated to be 26 percent of GDP in 2015, representing only a very modest increase over previous years (figure III.17). External-debt-to-GDP ratios in developing countries declined significantly in the first decade of the new

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millennium, in particular thanks to high GDP growth and debt relief, but have started to rise modestly since then. This recent rise is more pronounced in low-income countries, which saw an increase in their external debt from 31 per cent of GDP in 2014 to 35 per cent in 2015. While the overall debt situation of developing countries remains relatively benign, risks to debt sustainability persist for a number of small states, and also arise from changes in the debt composition and increased borrowing from capital markets.

Three low-income countries are currently considered to be in debt distress by the IMF and the World Bank, and an additional 17 countries are at high risk of debt distress, as compared to 13 countries in April 2015.¹¹ The sharp fall in commodity prices and the slow-down in economic growth have forced a number of countries to seek financial assistance from the IMF and the World Bank in recent months. In addition, there are also a number of lower middle-income countries that are Small States¹² — often hampered by limited economic activity and a small tax base — with very high debt-to-GDP ratios. Exposure to

solutions applicable across different country or regional contexts. The Inter-agency Task Force on Financing for Development has set up a series of work streams to explore policy options.

Current streams include work on illicit financial flows, measures of official support for sustainable development, and aligning capital market incentives with sustainable development. In each of these areas, the Task Force will explore new ideas and new mechanisms to promote the alignment of all financing flows with sustainable development, and to further implementation of the 2030 Agenda and achievement of the SDGs.