Expenditure instruments:

Wage, Salaries (ch 2)

Hagen et al. (2002) find that cuts to government wages have lasting effects. Gupta et al. (2004, Chapter 2) examine a subset of low-income countries by regressing real per capita GDP growth on fiscal variables (government spending) and covariates. They perform three specifications: In specification A, fiscal variables are represented as a percentage of GDP; in specification B, fiscal variables are expressed as a percentage of total government expenditure; and in specification C, they use specification B but further break down the deficit into internal domestic financing and external financing.

Their findings indicate that a 1% increase in government wages/salaries as a percentage of GDP reduces real GDP growth per capita by 0.525%. Similarly, a 1% increase in wages/salaries as a percentage of total expenditure reduces real GDP growth per capita by 0.213% in specification B and by 0.250% in specification C. The wage coefficient was statistically significant in all three models. However, robustness tests using a GMM model show that wages are no longer statistically significant in specification A. When focusing on pre-stabilization countries, defined as those with an average budget deficit of more than 2.5% of GDP from 1990-2000, Gupta et al. (2004) find similar results. In these countries, a 1% increase in government wages/salaries as a percentage of GDP reduces real GDP growth per capita by 0.305%, although this coefficient is not statistically significant. A 1% increase in wages/salaries as a percentage of total expenditure reduces real GDP growth per capita by 0.233% in specification B and by 0.246% in specification C.

Overall, the evidence strongly suggests that reducing wages as a portion of government spending increases real GDP growth.

Capital Expenditure (ch 2)

Gupta et. al (2004) also finds strong evidence to suggest that government spending on capital expenditure has a positive effect on GDP growth long-term. They find that a 1% increase in capital expenditure as a percentage of GDP increases real GDP growth per capita by 0.567% overall and by 0.682% for pre-stabilization countries specifically. They find that a 1% increase in capital expenditure as a percentage of government expenditures increases real GDP growth per capita by 0.154% overall and by 0.148% for pre-stabilization countries specifically.

Debt payments (ch 2, 5)

The economic theory suggests that higher debt service as a percentage of output means that investments are essentially "taxed away" thereby discouraging private investment and limiting economic growth. Gupta et. al (2004) finds that an increase in debt interest payments has a statistically insignificant effect (coefficient of -0.293) on real GDP growth per capita. However, when you look at just pre-stabilization countries, there is stronger evidence to support a relationship between debt interest payments and real GDP growth. There's a coefficient of -0.538, which although is statistically significant has a t-statistic of -1.44. A 1% increase in debt interest payments as a percentage of total expenditure reduces real GDP growth per capita by 0.118% in Model B and a reduction of 0.227% in model C. When subsetting by pre-stabilization countries, A 1% increase in debt interest payments as a percentage of total expenditure reduces real GDP growth per capita by 0.150% in Model B and a reduction of 0.260% in model C.

An increase in debt service also has the issue of reducing a government's spending capacity on other expenditures. Stephens (2001) found each $1 increase in debt service reduced education by $0.33, reduced government wage spending by $0.14-23, but increased public health spending by $0.12-$0.23. Clements et al. (2003) use a reduced form growth model to estimate the effects of an increase in debt service on public investment. They found that a higher debt service crowds out public investment, but at a non-linear rate - there was more of a crowding out effect as debt service increased relative to GDP. On average, a 1 percentage point increase in debt service as a percentage of GDP decreased public investment as a percentage of GDP by 0.2 percentage points.

Education Expenditure (ch 8)

Gupta et. al. (2002) study the effects of education spending on education enrollment. They employ two methods. First, they regress education enrollment on education spending as a proportion of GDP and covariates. As a second method, they employ two stage least square regression where they use foreign aid and military spending as an instrumental variable. They find that a 1% increase in education spending as a percentage of GDP increases primary/secondary school enrollment by 1.68 ad 3.20 percent in the regression and 2SLS model, respectively. They find that a 1% increase in education spending as a percentage of GDP increases secondary school enrollment by 2.26 ad 2.62 percent in the regression and 2SLS model, respectively.

Tax instruments:

Value Added Tax (ch 12)

Value Added Taxes (VATs) and other indirect taxes make up a large proportion of both LIC and Sub-Saharan African tax revenue. In the 1990s, LICs and Sub-Saharan African countries have slightly shifted away from trade tax revenue and corporate tax revenue and increased their reliance on VATs and other indirect taxes. In LICs, indirect taxes account for 39.4% of government revenue. In Sub-Saharan Africa, indirect taxes account for 29.4% of government revenue.

Table A1 p. 338 suggests the following generalization on the tax revenue side: LIC and LMIC countries differ from UMIC and High Income basically by a doubling of Social Security Taxes and a halving of trade taxes (each changing by 10%+ of tax revenue). The split of tax revenues between direct and indirect does not differ much by income level: VAT and direct taxes are each about 25% and other indirect around 10%+. The same patterns distinguish developing countries as a whole (unweighted average) from high income. [One other striking observation in this table about overall revenue excluding grants is the large jump in "other" (non-tax) revenue for LMIC countries (37% of tax revenues) as compared to all others (about 21%). This is probably mainly revenue from mineral royalties.]

Tax Revenue and expenditures by country:
https://data.imf.org/?sk=a0867067-d23c-4ebc-ad23-d3b015045405&sid=1544448210372