

Methodology for compiling an inflation rate for the Southern African Development
Community (SADC)¹

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Abstract

This paper considers methodologies used by the European Economic Area (EEA) and the Eastern Caribbean Currency Union (ECCU) for compiling their regional inflation rates and uses similar methodology to compile a regional inflation rate for the Southern African Development Community (SADC). The analysis shows that different methodologies can be used to calculate regional rates of inflation. The EEA calculates three regional rates of inflation (for three different groups of countries) on the basis of *household final monetary consumption expenditure* (or private final consumption expenditure). This approach is also used by the West African Economic and Monetary Union (or UEMOA from its name in French, *Union économique et monétaire ouest-africaine*). In the case of ECCU the regional rate of inflation is calculated on the basis of the size of the relative GDP of each member country. A similar approach is used by the Economic and Monetary Community of Central Africa (or CEMAC, from its name in French, *Communauté Économique et Monétaire de l'Afrique Centrale*).

The analysis in this paper shows that differences in the relative sizes of participating economies or in consumption patterns do not prohibit the calculation of regional inflation rates. In the calculation of a regional rate of inflation for SADC, either the approach of the EEA or that of ECCU could be used. The choice of methodology in the case of SADC is,

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however, determined by the availability of data. The analysis also shows that harmonisation of measurement of consumer price data among SADC countries is necessary to ensure full compatibility of inflation rates; that rationalisation of regional structures is required in Africa in general and in SADC in particular; and that reasonable time frames should be set for the achievement of SADC's targets, goals and objectives.

JEL Classifications: E 31, E42, E58, F15, F31

Key words: EU; ECCU; inflation rate; convergence targets; macroeconomic convergence; monetary union; SADC

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1. Introduction

This paper assesses the methodology applied in the European Economic Area (EEA) and the Eastern Caribbean Currency Union (ECCU) to consider a suitable methodological approach for the calculation of a regional rate of inflation for the countries comprising the Southern African Development Community (SADC). SADC is chosen for this purpose as it is, in terms of economic performance, the largest and most important regional economic bloc on the African continent (see for instance Rossouw, 2008:105).

African countries view successful regional integration as a cornerstone for the achievement of improved economic growth and accelerated sustained economic development (see for instance Todaro and Smith, 2009). SADC plays a pivotal role within such a strategy.

The rest of this paper is structured as follows: Section 2 considers similarities in and differences between the calculations of regional inflation rates in monetary unions. Section 3 describes the SADC region and Section 4 applies the approach used in the EEA and in the ECCU to the calculation of a SADC rate of inflation. The conclusions follow in Section 5.

2 Regional inflation calculation in monetary unions

2.1 EEA

The EEA comprises two sub-regions, namely the Euro zone countries² that have adopted the Euro as a single currency and the European Union with 27 member countries³, namely the Euro zone countries. The EEA comprises 30 countries, namely the EU countries plus Iceland, Liechtenstein and Norway (European Commission, [s.a.]; Eurostat, 2004; Eurostat, 2010a; Eurostat, 2010b).

The history of monetary unification in Europe shows that monetary unification is not achieved without overcoming obstacles and considerable difficulty (see for instance Vanthoor, 1996:4). Vanthoor (1996:4). This research also highlights three earlier currency unions that preceded the current monetary union in Europe. A factor contributing to the demise of earlier European currency unions was the persistent use of national currencies by member states. The opportunity cost of leaving a currency union for any one country is relatively high once a single currency has been introduced. A case in point is current economic and financial conditions in the Euro zone, following on the global financial crisis of 2008. Despite the high cost of adjustment, not one of the Euro zone countries (and Greece in particular comes to mind) has elected to reintroduce a national currency as a means to ease domestic economic and financial adjustment.

The introduction of the European Central Bank (ECB) and a single European currency for the Euro zone countries were preceded by a number of initiatives in preparation for this change. For the purpose of this paper the two most important initiatives are the Maastricht economic convergence criteria and the adoption of suitable methodology to calculate national rates of inflation for EEA countries.

First, in respect of the Maastricht convergence criteria, a lot of attention is currently focused on the criteria dealing with budget deficits and government debt. However, there are five criteria, namely:

- budget deficits of EU member countries not exceeding 3 per cent of their respective gross domestic products (GDPs);
- government debt not exceeding 60 per cent of GDP;
- inflation at a level not more than 1,5 percentage points above the average rate of inflation of the three EU countries with the lowest rates of inflation;

² Austria, Belgium, Cyprus, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Malta, Netherlands, Portugal, Slovakia, Slovenia and Spain.

³ Euro zone countries plus Bulgaria, Czech Republic, Denmark, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Sweden and United Kingdom.

- nominal long-term interest rates not more than 2 percentage points higher than rates in the three lowest inflation member states; and
- countries applying to join the Euro zone should have adopted the exchange rate mechanism of the European Monetary System (EMS) two years prior to membership, should not have devalued their currencies during that period and should have maintained a stable exchange rate within the EMS.

Secondly, EEA countries agreed on the adoption of a suitable statistical methodology to calculate national rates of inflation for each member country and a composite rate of inflation for the region. For this purpose the European Commission (Eurostat) in collaboration with national statistical institutes and the European Monetary Institution (EMI) (later replaced by the ECB) developed the Harmonised Index of Consumer Prices (HICP) (OECD, [S.a.]). The HICP is used for calculating price levels and the rate of change in price levels (i.e. the rate of inflation) (see for instance European Commission, [S.a.]; or Eurostat, 2004).

The use of the HICP by EEA countries ensures comparability of inflation measurement between these countries (see for instance Cournède, 2005). The main differences between the CPIs of individual EEA countries and the HICP can be summarised as (European Commission, [S.a.]):

- the inclusion of owner-occupied housing in the CPIs of some individual countries, while the HICP excludes owner-occupied housing;
- the standardised treatment of indirect taxes, fees and subsidies in consumer prices used in the calculation of the HICP, which is not the case in the CPIs of individual countries;
- the standardised treatment of summer and winter sale prices in the HICP, while sale prices are treated differently in the CPIs of member countries; and
- differences in methodologies used in the CPIs of individual countries to adjust for quality improvements, while a standardised approach is used for such adjustments in the HICP.

The HICP records the prices of goods and services purchased for directly satisfying consumer needs in EU participating countries and is therefore calculated on the basis of 'household final monetary consumption expenditure' (or private final consumption expenditure) (Eurostat, 2004:19). Particular emphasis is placed on the *purchasing* of consumption goods and services in the calculation of price changes. Other means of improving living standards and other forms of consumption are not considered.

The HICP is used to calculate three consumer price indices for the EEA. First, it is used for the calculation of the Monetary Union Index of Consumer Prices (MUICP) for the Euro zone countries (see Annexure A). Secondly, the European Index of Consumer Prices (EICP) is calculated. The EICP is used to determine inflation convergence among the member countries of the EU (Eurostat, 2010a). Thirdly, the EEA Index of Consumer Prices (EEAICP) is calculated for the countries comprising the EEA (Eurostat, 2010a).

An assessment of the respective sizes and relative economic contributions of the countries comprising the Euro zone shows that Germany (the largest economy) is 321,9 times the size of Malta (the smallest). In terms of expenditure patterns, the largest difference of 5,2 times for education expenditure is recorded between Belgium (the smallest) and Cyprus (the largest).

2.2 ECCU

The ECCU was established on 1 October 1983 and comprises Anguilla, Antigua and Barbuda, Dominica, Grenada, Montserrat, St Kitts and Nevis, St Lucia, and St Vincent and the Grenadines. The Eastern Caribbean Central Bank in St Kitts and Nevis serves as central bank for the ECCU (see for instance Eastern Caribbean Central Bank, 2009). The currency is the East Caribbean dollar, which is pegged to the US dollar at US\$1 = EC\$2,70. The ECCU has a population of only 600 000 people (Boyd and Smith, 2006:98).

The region calculates and publishes a regional inflation rate for the ECCU countries (see Annexure B). The regional inflation rate is calculated on the basis of the GDP contributions of each member country and the national inflation rates of member countries (e-mails received from Seana Benjamin-Mack of the ECCB). As Anguilla simply uses the ECCU regional CPI weights in the calculation of its own CPI, the relative differences in size might not be a full reflection of actual expenditure patterns. Individual country weights per expenditure group do therefore not necessarily add up to exactly 100 for the ECCU region. Moreover, different base years are used for member countries in weighing their respective GDP contributions.

The analysis of the calculation of a regional inflation rate for the ECCU also shows that differences in the size of participating countries are not an impediment. In the case of the ECCU, the largest difference of 24,9 times is in respect of the GDP of Antigua and Barbuda (the largest), compared to Montserrat (the smallest). The largest difference in expenditure

weights is in respect of alcoholic beverages and tobacco, where expenditure in St Lucia is 6,2 times higher than in Antigua and Barbuda. Such differences are therefore not an impediment in calculating regional rates of inflation. As the ECCU uses different base years for member countries in weighing GDP contribution and adopted the ECCU CPI weights for calculating CPI in Anguilla, individual country weights per expenditure group do not necessarily add up to exactly 100 for the ECCU region.

2.3 Other monetary unions

Other than the EU and ECCU, the two CFA franc zones in Africa also function as monetary unions. The methodology used in these two regions is not considered in detail, as the:

- West African Economic and Monetary Union (or UEMOA from its name in French, *Union économique et monétaire ouest-africaine*), with the BCEAC as its central bank uses the same methodology as the EU (household final monetary consumption expenditure) to calculate its regional rate of inflation; and
- Economic and Monetary Community of Central Africa (or CEMAC, from its name in French, *Communauté Économique et Monétaire de l'Afrique Centrale*) with the BEAC as its central bank uses the same methodology as ECCU (relative GDP of each member country) to calculates its regional rate of inflation.

The analysis in this section highlights

- the use of two different methodologies in the calculation of regional inflation: the EEA and UEMOA use relative consumption expenditure in participating countries for the calculation of regional inflation rates, while relative GDP contributions are used for this purpose in the ECCU and in CEMAC;
- that differences in relative size of countries participating in a monetary union (e.g. Germany vs Malta) are not an impediment in calculating a regional inflation rate;
- that differences in expenditure patterns of countries participating in a monetary union (e.g. St Lucia vs Antigua and Barbuda) are not an impediment in compiling a regional inflation rate; and
- the importance of the availability of data for the calculation of regional inflation rates.

3 The SADC region

In this section the analysis in the previous section is used to compile a SADC rate of inflation. The choice of the SADC region for this purpose is informed, *inter alia*, by the fact that South Africa forms part of the SADC region and the region has already announced its intention to introduce a monetary union with regional currency and a regional central bank.

SADC comprises Angola, Botswana, the Democratic Republic of the Congo (DRC), Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Swaziland, Tanzania, Zambia and Zimbabwe. The activities of SADC are co-ordinated by a secretariat in Gaborone, Botswana (Background information on SADC, 2000). SADC is one of 16 regional structures in Africa.

SADC countries have agreed on seven targets to enhance co-operation and integration in the region and to support its various objectives. These targets are embodied in SADC's *Regional Indicative Strategic Development Plan* which was launched on 12 March 2004 in Arusha, Tanzania (Gaolathe, 2004:4). The targets can be summarised as follows (see for instance Masson and Pattillo, 2005:114; Mboweni, 2003; Southern African Development Community, [S.a.]; or Southern African Development Community, 2002):

1. Target 1: a SADC free trade area by 2008;
2. Target 2: completion of negotiations on a SADC Customs Union by 2010 (subsequently postponed);
3. Target 3: completion of negotiations on a SADC common market by 2015;
4. Target 4: diversification of industrial structure and exports to enhance value addition across all economic sectors by 2015;
5. Target 5: macroeconomic convergence goals for inflation rates, budget deficits as a ratio of GDP, and nominal value of public and publicly guaranteed debts as a ratio of GDP;
6. Target 6: achievement of other financial indicators, i.e. reserves/import cover, central bank credit to government, domestic savings levels, domestic investment levels, interconnected payment and clearing systems, currency convertibility, dual and cross listings on regional securities exchanges, liberalisation of exchange control, and increased credit extension to women and SME's; and
7. Target 7: establishment of a SADC monetary union by 2016.

SADC countries achieved their first target of establishing a free trade area in 2008. In terms of this free trade agreement, most goods produced within SADC can now move between member countries without attracting customs duties.

It was necessary for SADC countries to postpone to 2011 the target date for the establishment of a customs union. With the adoption of the free trade area, certain SADC countries already face the challenge of recouping losses in government revenue owing to the abolition of different forms of taxation on imported goods. This difficulty will be exacerbated by the adoption of a single tariff system between the region and the rest of the world in terms of a customs union agreement. Such a tariff structure can hardly take care of the differences in revenue requirements of SADC governments.

Progress with the achievement of targets 3 and 4 are, to a degree, dependent on the successful introduction and completion of a SADC-wide customs union.

Targets 5 and 6 are seemingly overlapping in respect of macroeconomic convergence. However, in terms of a *Finance and Investment Protocol* (FIP) adopted in 2008 by SADC countries (see for instance Mboweni, 2009:12 or SADC, 2003), agreement has been reached that macroeconomic convergence will be measured and monitored in terms of the (i) rate of inflation in each country; (ii) ratio of the budget deficit to GDP; (iii) ratio of public and publicly-guaranteed (i.e. government) debt to GDP; and (iv) balance and structure of the current account. These criteria are summarised in Table 1.

Table 1
Macroeconomic convergence goals for SADC

Criteria	2008	2012	2018
Inflation rate	Single digits	5%	3%
Budget deficit	5% or less of GDP	3% of GDP as anchor, with a range of 1%	3% of GDP as anchor, with a range of 1%
Government debt	Less than 60% of GDP	Less than 60% of GDP	Less than 60% of GDP
Current account deficit	Single digits	Single digits	Single digits

Sources: Adapted from Mboweni (2003), Mboweni (2005), Rossouw (2006a), Rossouw (2006b), SADC (2003).

Slippage with the achievement of the macroeconomic convergence goals was recorded since 2004 (see for instance Committee of Central Bank Governors, 2007; Rossouw, 2006a; or Rossouw and Fourie, 2008). This raises the question whether the target dates set in terms of macroeconomic convergence and the dates set for the achievement of these targets are at all reasonable and achievable. This problem is exacerbated by overlapping regional structures in Southern Africa, evidenced by Appendix C. In addition, three SADC

countries (Botswana, South Africa and Tanzania) from part of the Committee of Ten (C-10) group of countries and central banks.

The C-10 comprises Algeria, Botswana, Cameroon, Egypt, Kenya, Nigeria, South Africa and Tanzania, and the BCEAO and the BEAC. The C-10 was established in Tunis in November 2008 and has as its objectives:

- monitoring the impact of the global financial and economic crisis on Africa;
- discussing options for Africa's policy responses to the global crisis;
- advocating enhanced African participation in governance of international financial institutions (IFIs);
- identifying strategic economic priorities for Africa; and
- developing a clear strategy for Africa's engagement with the G-20.

It is somewhat disconcerting to note the mutually exclusive goals (e.g. SADC and Comesa in respect of a customs union) of some of these structures with overlapping membership (see Appendix C).

A related problem is country-specific differences in the calculation of inflation rates (see for instance Cournède, 2005) and problems of inflation credibility (see for instance Rossouw, 2008; Rossouw and Joubert, 2005a; Rossouw and Joubert, 2005b; or Rossouw and Padayachee, 2006). Harmonisation of the measurement of inflation within a regional structure is necessary, as the credibility of inflation figures can be jeopardised when one currency is replaced with another. This happened, for instance, in Europe since the introduction of the Euro in 2002 (Issing, 2006). SADC countries have to harmonise the measurement of inflation rates in their quest for the compilation of a regional rate of inflation.

4 Compilation of a SADC rate of inflation

Drawing on the approaches used by EEA and ECCU countries, it transpires that reliable consumption expenditure data is not available for SADC countries. This implies that a regional rate of inflation can only be calculated on the basis of the relative GDPs of SADC member countries, as is highlighted in Appendix D. On a weighted basis in terms of most recent (mainly 2008) data, regional inflation in SADC was indeed within the macroeconomic convergence target set for 2008 (single digits).

When calculating SADC's regional inflation rate on the basis of GDP data compiled by the International Monetary Fund (IMF) (see table D2, Appendix D), South Africa accounts for

approximately 2/3 of SADC's GDP. This implies that South Africa's inflation rate is the largest contributor to the regional rate. South Africa is followed by Angola, as that country has the second-largest GDP in the region. Zimbabwe's values are excluded, except for 2009. Between 2001 and 2009 the rates of inflation in Angola and in the DRC decreased considerably, which contributed to a declining trend in SADC's inflation rate over this period. In 2000 Angola's inflation contributed 15,90 percentage points to the regional rate of inflation of 34,54 per cent, followed by the DRC that contributed 12,67 percentage points. SADC's inflation rate decreased from 34,54 per cent in 2000 to a low point of 5,44 per cent in 2004, but accelerated since 2004 to 9,4 per cent in 2009.

When using World Bank data (see table D4, Appendix D), South Africa's inflation weight contributes approximately 2/3 to the total SADC weight for the period from 2000-2001, 2003 and 2006-2007. In 2002, 2008-2009 South Africa's weight is less than 2/3 and from 2004-2005 it is more than 2/3.

Similarly as in the case with the IMF data, Angola's weight contributes 15.47% to SADC's total inflation of 23.32% in 2000. South Africa is once again the largest contributor to the regional inflation rate followed by Angola. SADC's total inflation decreased from 23.32% in 2000 to 17.32% in 2001. Between 2001 and 2002 it increased to 30.56%, before decreasing considerably to 6.5% in 2006. From 2008 to 2009 SADC's total inflation rate decreased again from 11.53% to 7.63%.

5 Conclusions

The analysis shows that a regional rate of inflation can be compiled for SADC, and that similar methodology can be used to calculate a regional inflation rate for any group of countries. The relative sizes of participating economies, or differences in consumption expenditure patterns, do not prohibit the calculation of such inflation rates.

Unexpected findings are that:

- unreliable, incomplete and unavailable data resources seriously limit this research. This limitation has to be addressed before more extensive research of a similar nature can be undertaken;
- reasonable time frames should be set for the achievement of SADC's targets, goals and objectives as current data deficiencies are but only one factor limiting the achievement of such objectives; and

- rationalisation of regional structures is required in Africa in general and in SADC in particular.

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Annexure A

Table A1 Calculation of MUICP in the EU, based on 2008 expenditure patterns

	Euro area	Belgium	Germany	Ireland	Greece	Spain	France	Italy	Cyprus	Luxembourg	Malta	Netherlands	Austria	Portugal	Slovenia	Slovakia	Finland
Country weights	1000	33.85	260.74	15.64	Qawzs	127.92	205.97	184.97	2.50	2.60	0.81	50.94	30.23	21.99	3.71	6.77	16.81
Food and non-alcoholic beverages	156.23	178.14	123.22	137.72	175.93	181.38	163.02	176.87	180.81	109.60	185.63	133.46	130.84	184.65	172.03	180.60	165.38
Alcoholic beverages, tobacco	37.09	30.18	45.05	71.50	45.83	25.67	35.56	30.29	29.37	120.70	49.06	36.24	29.99	29.78	48.96	56.39	60.20
Clothing and footwear	67.84	57.01	53.13	50.78	85.82	88.60	53.96	96.78	83.76	47.90	60.53	63.90	56.81	50.64	69.39	46.16	54.15
Housing, water, electricity, gas and other fuels	156.30	172.60	235.76	104.83	93.99	109.12	147.47	103.71	87.26	101.80	91.98	178.53	143.46	100.91	90.18	218.48	152.26
Furnishings, household equipment and routine house maintenance	71.08	66.64	61.15	45.61	68.76	71.20	67.27	91.86	61.07	79.40	86.23	77.84	79.83	58.75	72.84	62.96	61.91
Health	41.70	37.99	44.17	36.78	62.94	31.36	43.46	36.45	52.89	19.20	30.47	28.80	53.06	81.87	41.34	46.27	53.67
Transport	151.41	138.19	140.00	134.30	130.96	146.62	175.43	157.14	159.91	205.90	140.86	137.37	140.71	161.98	173.21	92.11	149.99
Communication	32.25	28.75	29.77	37.25	37.73	36.53	32.49	28.79	38.07	21.70	24.84	47.19	21.46	31.92	34.41	38.18	37.04
Recreation and culture	96.61	123.58	121.54	110.84	56.17	78.99	98.70	66.08	67.25	80.30	88.49	124.47	114.72	62.47	95.69	85.89	109.37
Education	10.43	5.47	10.44	24.48	22.55	13.30	5.96	10.51	28.45	5.80	10.84	6.50	10.05	21.55	15.63	17.75	6.01
Restaurants and hotels	94.37	91.95	51.88	176.97	156.18	148.54	73.19	117.07	123.70	89.60	178.10	64.63	150.41	134.94	102.23	83.57	83.42
Miscellaneous goods and services	84.70	69.49	83.89	68.95	63.15	68.71	103.49	84.46	87.43	118.10	52.98	101.07	68.67	80.53	84.09	71.64	66.60

Source: Eurostat 2004, Eurostat 2010a, Eurostat 2010b

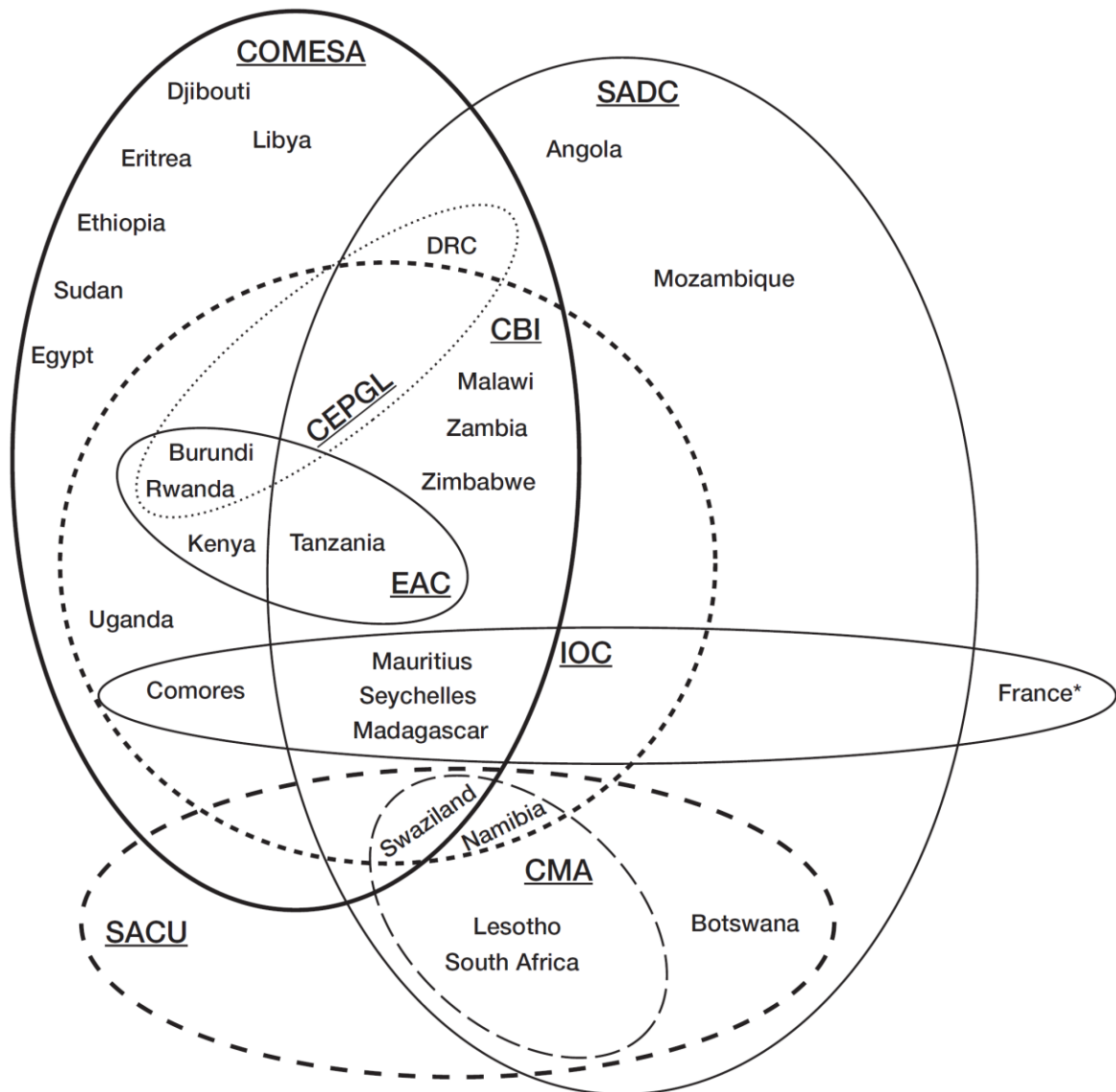
Annexure B

Table B1 Calculation of ECCU regional inflation rate

	ECCU	Anguilla	Antigua & Barbuda	Dominica	Grenada	Montserrat	St Kitts & Nevis	St Lucia	St Vincent & Grenadines
Country weights	100.0	6.14	25.93	7.72	13.70	1.04	11.51	21.50	12.46
Food and non-alcoholic beverages	321.2	321.2	214.2	328.8	367.5	375.7	208.5	252.9	536.1
Alcoholic beverages, tobacco	2.9	2.9	1.6	9.5	8.6	9.0	7.1	9.9	9.5
Clothing and footwear	30.7	30.7	110.6	82.1	97.7	70.7	92.9	113.1	88.7
Housing	171.5	171.5	218.3	111.7	102.0	147.7	129.9	132.0	97.9
Fuel and light	68.6	68.6	63.7	58.6	72.6	62.3	43.7	56.8	29.8
Medical care and expenses	30.9	30.9	27.8	31.6	46.5	11.6	37.2	49.4	10.1
Household furnishings and supplies	97.3	97.3	126.0	106.1	95.3	121.5	140.5	132.0	61.5
Transport and communication	235.3	235.3	153.5	210.4	138.9	161.5	192.7	174.4	68.5
Education	9.9	9.9	23.4	29.0	37.4	10.2	21.4	38.3	34.3
Personal services	16.4	16.4	43.0	13.8	16.0	9.7	19.9	19.5	33.5
Miscellaneous	15.3	15.3	17.9	18.4	17.5	20.1	34.2	21.7	30.1

Source: International Monetary Fund, 2008

Annexure C: Overlapping regional arrangements in Southern Africa



- | | |
|--------|---|
| CBI | Cross Border Initiative |
| CEPGL | Economic Community of the Great Lakes Countries |
| COMESA | Common Market for Eastern and Southern Africa |
| CMA | Common Monetary Area |
| EAC | Commission for East African Co-operation |
| IOC | Indian Ocean Commission |
| SADC | Southern African Development Community |
| SACU | Southern African Customs Union |
| * | France has membership for Réunion and Mayotte |

Sources: Fajgenbaum et al, 1999; Ilorah, 2008; authors' own research

Annexure D

Table D1 SADC regional inflation rate calculated at current prices (2009)

Country	Inflation (% Change)	GDP at current price (US dollar)	GDP weight per country	SADC rate of inflation
Angola	13.721	74.474	0.158537286	2.18
Botswana	8.108	11.684	0.024872434	0.20
Democratic Republic of Congo	46.221	11.108	0.023646268	1.09
Lesotho	7.161	1.623	0.003454978	0.02
Madagascar	8.957	8.589	0.018283921	0.16
Malawi	8.421	4.723	0.010054134	0.08
Mauritius	2.516	8.589	0.018283921	0.05
Mozambique	3.254	9.831	0.020927841	0.07
Namibia	9.144	9.394	0.019997573	0.18
Seychelles	31.813	0.79	0.001681721	0.05
South Africa	7.111	287.219	0.611420373	4.35
Swaziland	7.592	3	0.006386281	0.05
Tanzania	12.144	21.308	0.045359622	0.55
Zambia	13.393	12.805	0.027258774	0.37
Zimbabwe	6.489	4.62	0.009834872	0.06
		469.757	1	9.47

Sources: International Monetary Fund, 2011; authors' calculations

Table D2 SADC GDP weight at current price

Country	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Angola	0.048906	0.051383	0.066605	0.058453	0.065108	0.086475	0.115272	0.136473	0.178152	0.158537
Botswana	0.030238	0.034863	0.035748	0.033993	0.033083	0.029255	0.028833	0.027955	0.028626	0.024872
Democratic Republic of Congo	0.023037	0.02963	0.032402	0.023794	0.021502	0.020278	0.022519	0.02264	0.024539	0.023646
Lesotho	0.003994	0.003945	0.003738	0.003966	0.003966	0.003712	0.003614	0.003565	0.003378	0.003455
Madagascar	0.020762	0.026048	0.025721	0.022927	0.01435	0.014225	0.014075	0.016578	0.019945	0.018284
Malawi	0.009331	0.009873	0.015478	0.010052	0.008632	0.007741	0.007909	0.007807	0.00862	0.010054
Mauritius	0.024536	0.026088	0.027821	0.023627	0.020999	0.01774	0.016606	0.01698	0.019689	0.018284
Mozambique	0.022394	0.023426	0.024592	0.019765	0.018737	0.018573	0.018413	0.018335	0.020992	0.020928
Namibia	0.020938	0.020413	0.019708	0.020657	0.021758	0.02049	0.020376	0.019868	0.018984	0.019998
Seychelles	0.003951	0.004295	0.004896	0.003548	0.002762	0.002496	0.00247	0.002298	0.001939	0.001682
South Africa	0.711848	0.681745	0.651409	0.704572	0.72153	0.697165	0.666537	0.645555	0.585748	0.61142
Swaziland	0.008111	0.007573	0.006961	0.007627	0.007514	0.007123	0.006817	0.006651	0.00601	0.006386
Tanzania	0.054533	0.059709	0.063212	0.048832	0.042175	0.039923	0.036574	0.037988	0.043707	0.04536
Zambia	0.017421	0.021011	0.021708	0.018186	0.017885	0.020267	0.027312	0.026056	0.031121	0.027259
Zimbabwe	0	0	0	0	0	0.014539	0.012674	0.01125	0.00855	0.009835
Total SADC GDP weight	1	1	1	1	1	1	1	1	1	1

Sources: International Monetary Fund, 2011; authors' calculations

Table D3 SADC inflation (% Change)

Country	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Angola	325.029	152.586	108.893	98.342	43.559	22.961	13.305	12.249	12.465	13.721
Botswana	8.534	6.565	8.026	9.185	6.988	8.61	11.553	7.077	12.623	8.108
Democratic Republic of Congo	550	357.28	25.316	12.817	4.001	21.394	13.211	16.713	17.966	46.221
Lesotho	6.132	6.917	12.476	7.267	5.037	3.438	6.077	8.001	10.72	7.161
Madagascar	10.661	6.929	16.235	-1.126	13.96	18.357	10.767	10.357	9.174	8.957
Malawi	29.597	27.247	17.43	9.586	11.424	15.464	13.922	7.949	8.71	8.421
Mauritius	4.23	5.389	6.461	3.924	4.738	4.907	8.981	8.8	9.7	2.516
Mozambique	12.713	9.061	16.769	13.455	12.634	6.428	13.245	8.162	10.328	3.254
Namibia	9.268	9.266	11.282	7.152	4.147	2.261	5.053	6.728	9.982	9.144
Seychelles	6.3	6	0.2	3.3	3.9	0.645	-1.865	5.321	36.976	31.813
South Africa	5.374	5.7	9.177	5.806	1.392	3.393	4.688	7.09	11.504	7.111
Swaziland	7.2	7.489	11.7	7.4	3.4	4.8	5.319	8.162	13.109	7.592
Tanzania	4.589	5.147	4.555	4.429	4.138	4.359	7.251	7.028	10.276	12.144
Zambia	26.1	21.367	22.236	21.402	17.968	18.325	9.019	10.657	12.446	13.393
Zimbabwe						1200	66000	11 million	4.8 billion	6.489

Sources: International Monetary Fund, 2011; authors' calculations

Table D4 SADC regional inflation rate at current prices

Country	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Angola	15.90	7.84	7.25	5.75	2.84	1.99	1.53	1.67	2.22	2.18
Botswana	0.26	0.23	0.29	0.31	0.23	0.25	0.33	0.20	0.36	0.20
Democratic Republic of Congo	12.67	10.59	0.82	0.30	0.09	0.43	0.30	0.38	0.44	1.09
Lesotho	0.02	0.03	0.05	0.03	0.02	0.01	0.02	0.03	0.04	0.02
Madagascar	0.22	0.18	0.42	-0.03	0.20	0.26	0.15	0.17	0.18	0.16
Malawi	0.28	0.27	0.27	0.10	0.10	0.12	0.11	0.06	0.08	0.08
Mauritius	0.10	0.14	0.18	0.09	0.10	0.09	0.15	0.15	0.19	0.05
Mozambique	0.28	0.21	0.41	0.27	0.24	0.12	0.24	0.15	0.22	0.07
Namibia	0.19	0.19	0.22	0.15	0.09	0.05	0.10	0.13	0.19	0.18
Seychelles	0.02	0.03	0.00	0.01	0.01	0.00	0.00	0.01	0.07	0.05
South Africa	3.83	3.89	5.98	4.09	1.00	2.37	3.12	4.58	6.74	4.35
Swaziland	0.06	0.06	0.08	0.06	0.03	0.03	0.04	0.05	0.08	0.05
Tanzania	0.25	0.31	0.29	0.22	0.17	0.17	0.27	0.27	0.45	0.55
Zambia	0.45	0.45	0.48	0.39	0.32	0.37	0.25	0.28	0.39	0.37
Zimbabwe										0.06
Total SADC Inflation	34.54	24.40	16.74	11.74	5.44	6.26	6.61	8.13	11.64	9.47

Sources: International Monetary Fund, 2011; authors' calculations