Global Economy

dr Wioletta Nowak

Lecture 10

The Balance of Payments (BOP)

- The balance of payments is a statistical statement that summarizes transactions between residents and non-residents during a specific time period, usually a year.

- It is determined by country's exports and imports of goods, services, financial capital and financial transfers.

- BOP reflects all payments and liabilities to foreigners (**debits**) and all payments and obligations received from foreigners (**credits**).

The Balance of Payments (BOP) comprises

The Current Account

The Capital Account

The Financial Account

The Current Account

- The current account is an important grouping of accounts within the balance of payments.

- It shows flows of goods, services, primary income, and secondary income between residents and non-residents.

- The current account balance shows the difference between exports and income receivable and imports and income payable (exports and imports refer to both goods and services, while income to both primary and secondary income).

The Current Account

- **The primary income account** – income is provided in return for providing temporary use to another entity of labour or financial resources.

- **The secondary income account** – redistribution of income when resources for current purposes are provided by one party without anything of economic value being supplied as a direct return to that party. Examples include personal transfers and current international assistance.

- **The current account** is the net change in current assets from trade in goods and services (balance of trade), net factor income (such as dividends and interest payments from abroad), and net unilateral transfers from abroad (such as foreign aid, grants, gifts, remittances etc).

The Capital Account

- **The capital account** shows credit and debit entries for non-produced nonfinancial assets and capital transfers between residents and nonresidents.

- It records acquisitions and disposals of non-produced nonfinancial assets, such as land sold to embassies and sales of leases and licenses, as well as capital transfers, that is, the provision of resources for capital purposes by one party without anything of economic value being supplied as a direct return to that party.

- The capital account records the international flows of transfer payments relating to capital items. It therefore records a country's inflows and outflows of payments and transfer of ownership of fixed assets (capital goods).

The Financial Account

- **The financial account** shows net acquisition and disposal of financial assets and liabilities.

- The financial account = foreign direct investment (increase in foreign ownership of domestic assets – increase of domestic ownership of foreign assets) + portfolio investment (which includes trade in stocks and bonds) + other investment (which includes transactions in currency and bank deposits).

The Balance of Payments (BOP)

- The sum of the balances on the current and capital accounts represents **the net lending (surplus) or net borrowing (deficit)** by the economy with the rest of the world.

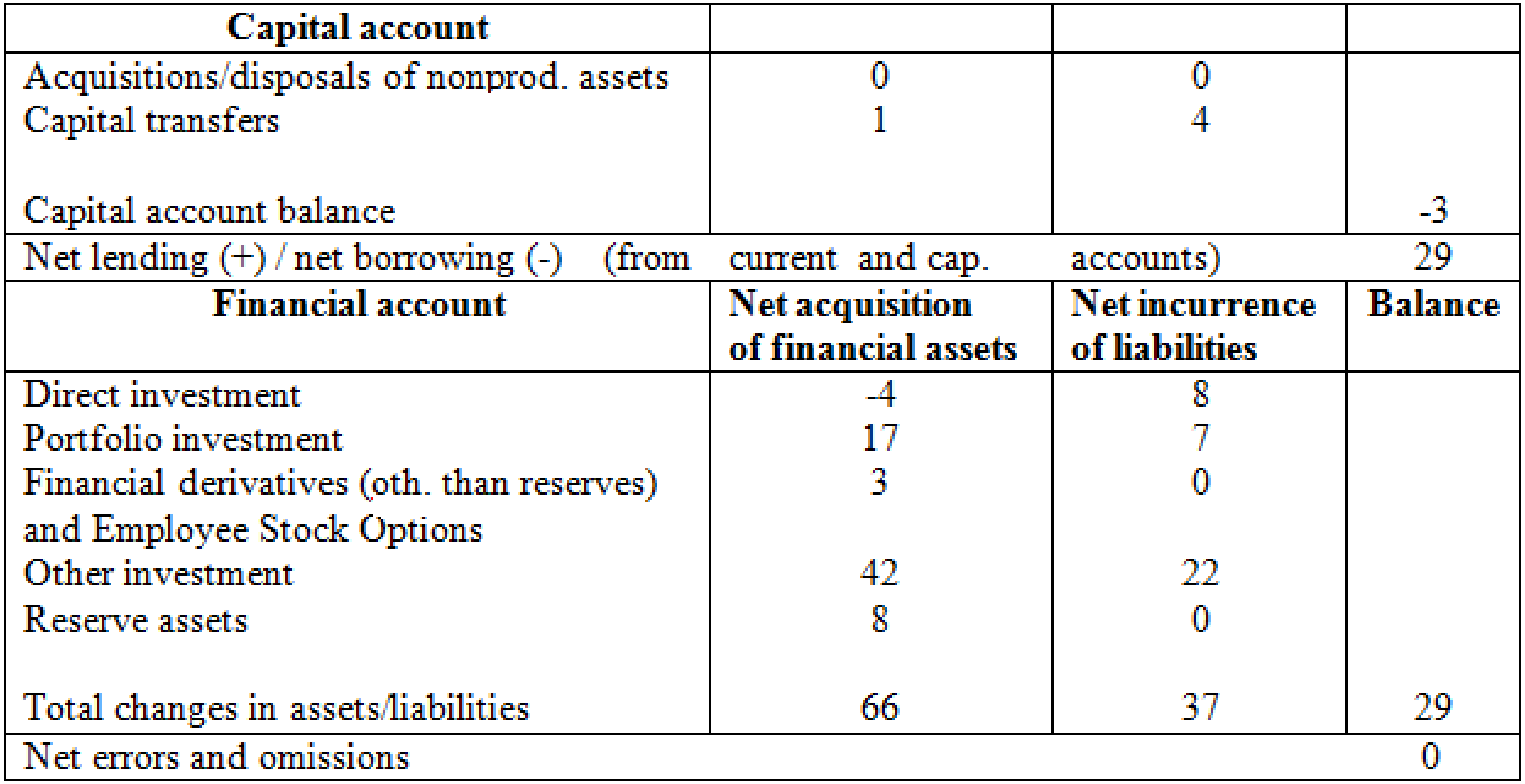
- This is conceptually equal to the net balance of the financial account.

- The financial account measures how the net lending to or borrowing from nonresidents is financed.

- The last component of the balance of payments is **net errors and omissions** and principally exists to correct any possible errors made in accounting for the three other accounts. These errors are common to occur due to the complexity of the calculations and difficulty in obtaining measurements.

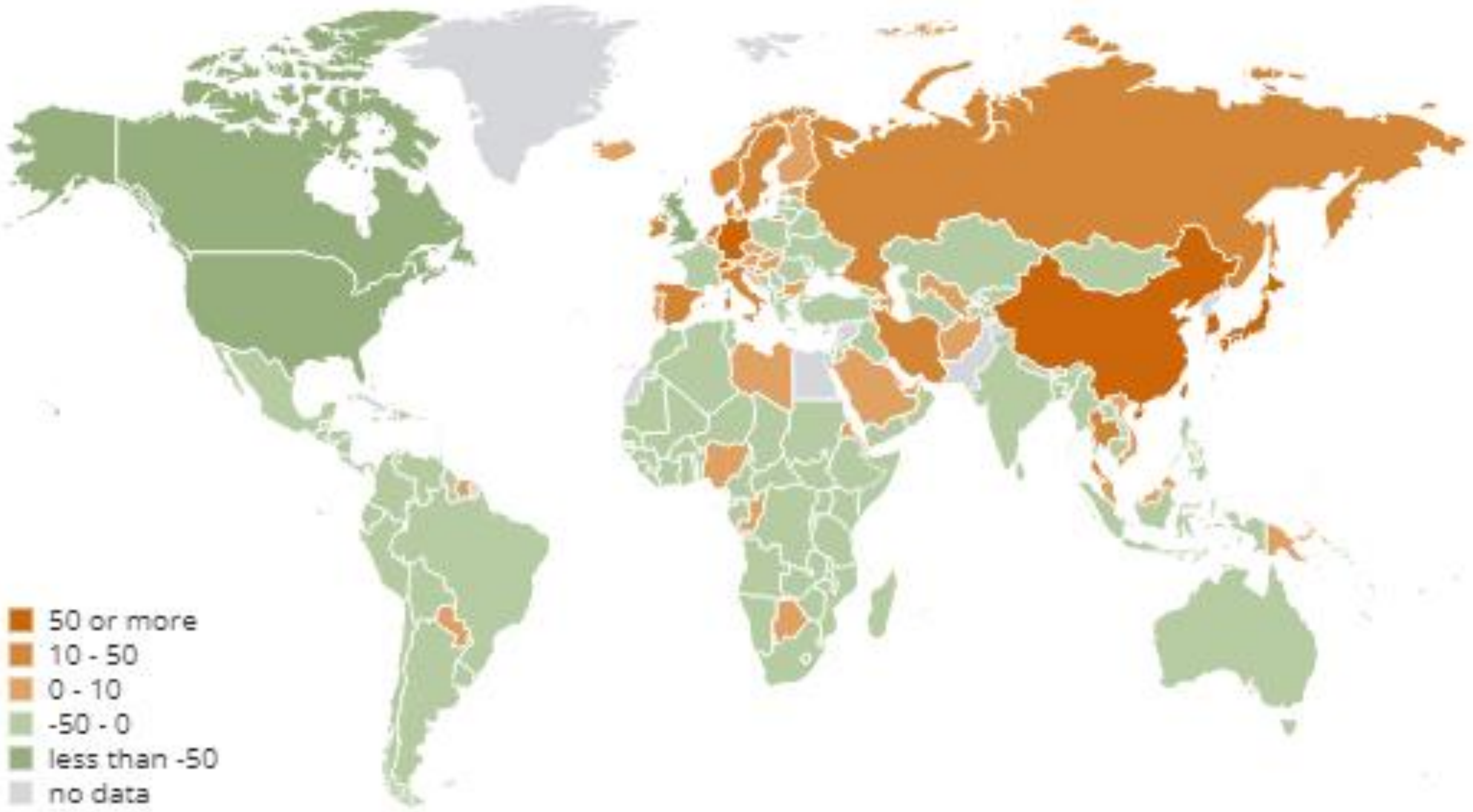
The balance of payments

Current account	**Credits**	**Debits**	**Balance**
Goods	462	392	70
Services	78	107	-29
Goods and services	**540**	**499**	**41**
Compensation of employees	6	2	
Interest	13	21	
Distributed income of corporations	36	17	
Reinvested earnings	14	0	
Primary income	**69**	**40**	**29**
Current taxes on income, wealth, etc	1	0	
Net nonlife insurance premiums	2	11	
Net nonlife insurance claims	12	3	
Current international transfers	1	31	
Miscellaneous current transfers	1	10	
Secondary income	**17**	**55**	**-38**
Current account balance			32



Capital account			
Acquisitions/disposals of nonprod. assets	0	0	
Capital transfers	1	4	
Capital account balance			-3
Net lending (+) / net borrowing (-) (from	current and cap.	accounts)	29
Financial account	**Net acquisition of financial assets**	**Net incurrence of liabilities**	**Balance**
Direct investment	-4	8	
Portfolio investment	17	7	
Financial derivatives (oth. than reserves) and Employee Stock Options	3	0	
Other investment	42	22	
Reserve assets	8	0	
Total changes in assets/liabilities	66	37	29
Net errors and omissions			0

Current account balance, 2018 (IMF)


50 or more
10 - 50
0 - 10
-50 - 0
less than -50
no data

The exchange rate and its determination

- The **exchange rate** between two currencies describes how much one currency is worth in terms of the other.
- The currencies are often quoted to the 4 decimal places.

- An exchange rate quotation is given by stating the number of units of **term currency** that can be bought in terms of 1 unit currency (**base currency)**.

- The quotation that says the EUR-PLN (or PLN/EUR) exchange rate is 4.1825 (4.1825 PLN per EUR) – the term currency is PLN, the base currency is EUR.
- The exchange rate tells how many Polish zlotys are paid or received for 1 euro.

- Market convention is to used the base currency which gives the exchange rate greater than 1.000.

- **Direct quotation**: 1 foreign currency unit = x home currency units (1 EUR=4.1825 PLN). Foreign currency is the base currency, home currency is the term currency.

- **Indirect quotation**: 1 home currency unit = x foreign currency units (1 PLN=0.2412 EUR). Home currency is quoted as the base currency (e.g. United Kingdom, Japan, the Eurozone).

- **Cross rate -** The currency exchange rate between two currencies, both of which are not the official currencies of the country in which the exchange rate quote is given in.

- For example, if an exchange rate between the EUR and the USD was quoted in an Polish newspaper, this would be considered a cross rate in this context, because neither the euro or the US dollar is the standard currency of the Poland.

Factors that influence the exchange rate

- Expectation of the market (1960s strong USD, between 1960s and 1970s weak, strong in 1999-2001, weak dollar today)

- Political events (fall of Berlin Wall and unification of East and West Germany, rumors about resignation of Gorbachov, September 11, 2001)

- Relative inflation rates (High inflation relative to a foreign country, decline in value of currency; low inflation relative to a foreign country, increase in value of currency)

- Relative interest rates (High interest rates in home country relative to a foreign country may cause domestic currency to appreciate)

- Relative income levels

- **Foreign currency effects** - the gain or loss on foreign investments due to changes in the relative value of assets denominated in a currency other than the principal currency with which a company normally conducts business.

- A rising domestic currency means foreign investments will result in lower returns when converted back to the domestic currency. The opposite is true for a declining domestic currency. Foreign investments are complicated by currency fluctuation and conversion between countries. A high quality investment in another country may prove worthless because of a weak currency.

- Foreign-denominated debt used to purchase domestic assets has led to bankruptcy in several cases due to a fast decline in a domestic currency or a rapid rise in the currency of the foreign-denominated debt.

Types of exchange rate

Floating exchange rate

Fixed exchange rate

Floating exchange rate

- **Floating exchange rate -** a country's exchange rate regime where its currency is set by the foreign-exchange market through supply and demand for that particular currency relative to other currencies.

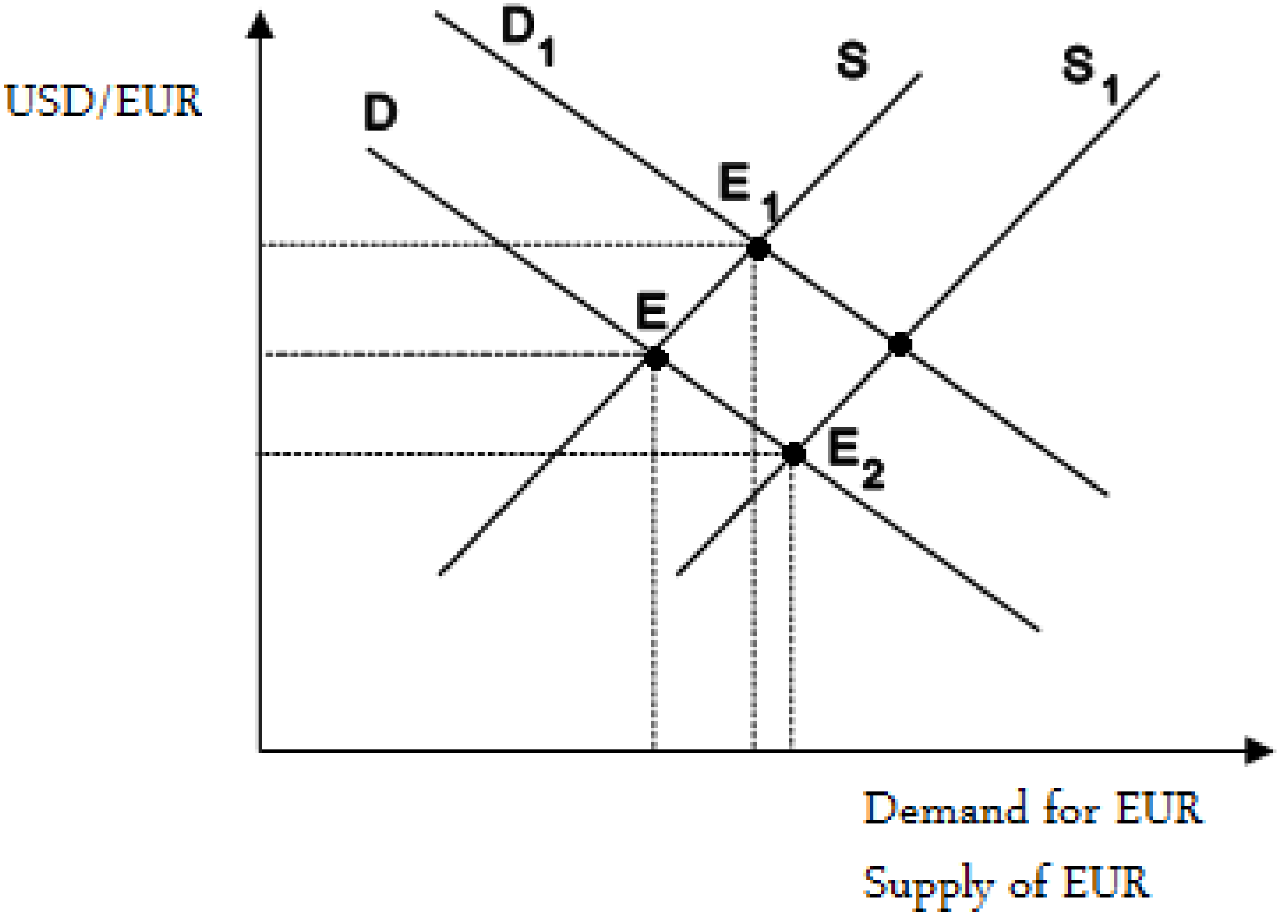
- Floating exchange rates change freely and are determined by trading in the foreign-exchange market.

Floating exchange rate

- Floating exchange rates tend to result in uncertainty as to the future rate at which currencies will exchange.

- If a currency value moves in any one direction at a rapid and sustained rate, central banks intervene by buying and selling its own currency reserves in the foreign-exchange market in order to stabilize the local currency.

Floating exchange rate



Fixed exchange rate

- **Fixed exchange rate** - a country's exchange rate regime under which the government or central bank ties the official exchange rate to another country's currency (or the price of gold).

- The purpose of a fixed exchange rate system is to maintain a country's currency value within a very narrow band.

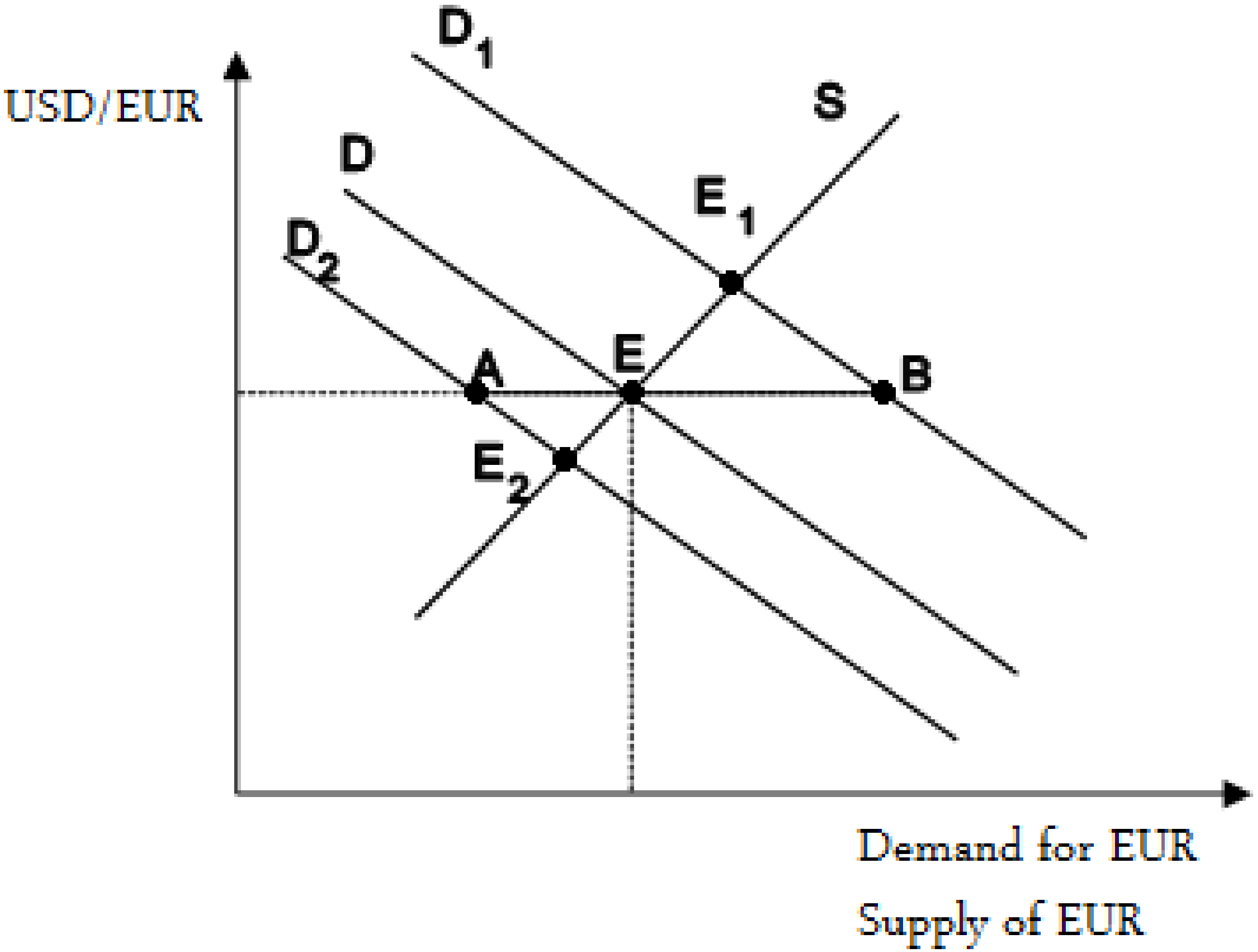
Fixed exchange rate

- Fixed rates provide greater certainty for exporters and importers.

- This also helps the government to maintain low inflation, which in the long run should keep interest rates down and stimulate increased trade and investment.

- In order to keep currencies trading at the prescribed levels, government monetary authorities actively enter the currency markets to buy and sell according to variations in supply and demand.

Fixed exchange rate



- **Currency depreciation** – the loss of value of a country’s currency with respect to one or more foreign reference currencies.

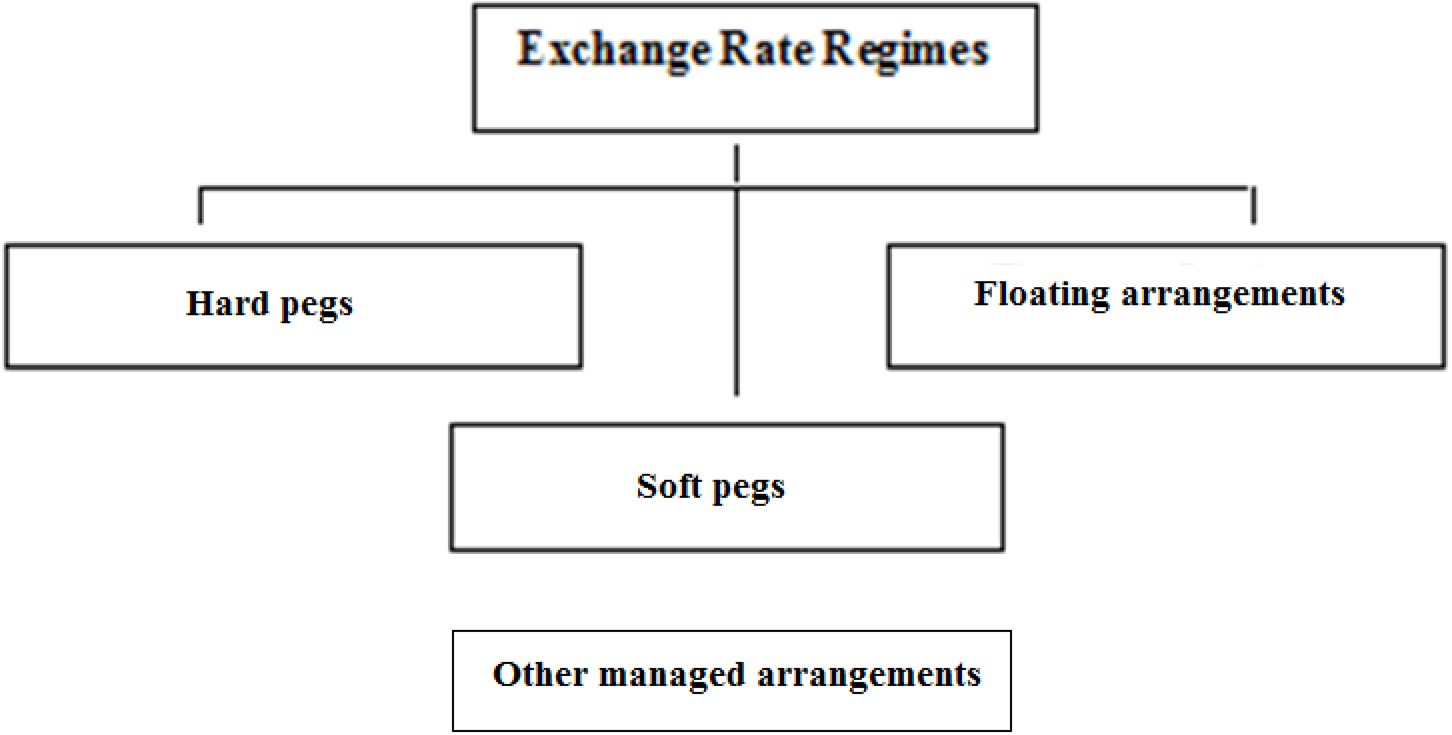
- **Currency appreciation** refers to an increase in value of a country’s currency.

- **Devaluation** – deliberate downward adjustment to a country’s official exchange rate relative to other currencies. In a fixed exchange rate regime, only a decision by a country’s government (central bank) can alter the official value of the currency.

- **Revaluation** – calculated adjustment to a country's official exchange rate relative to a chosen baseline. The baseline can be anything from wage rates to the price of gold to a foreign currency. In a fixed exchange rate regime, only a decision by a country's government (i.e. central bank) can alter the official value of the currency.

Exchange rate regimes

- **De jure arrangements** - exchange arrangement a member of IMF notifies to the Fund in accordance with Article IV, Section 2(b) of the Fund’s Articles of Agreement - and **de facto (observed) arrangements.**



Exchange Rate Regimes

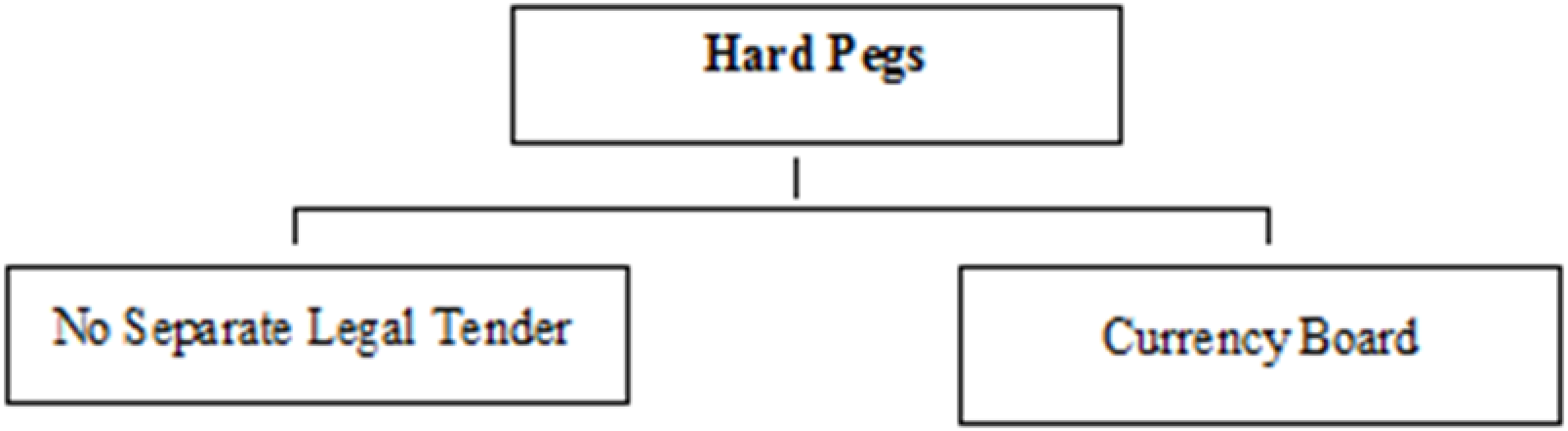
Hard pegs

Floating arrangements

Soft pegs

Other managed arrangements

- The classification of the exchange rate regimes based on the degree of flexibility of the arrangement or a formal or informal commitment to a given exchange rate path. The choice of exchange rate regime has implications for the degree of independence of monetary policy.


Hard Pegs
No Separate Legal Tender
Currency Board

- The classification distinguishes exchange arrangements that have no separate legal tender (dollarization) and rigid form of pegged regimes (currency board arrangements).

Hard Pegs – Dollarization

- The inhabitants of a country use foreign currency in parallel to or instead of the domestic currency.
- The term of dollarization is applied to usage of the any foreign currency as a national currency (not only the United States dollar).

- 14 Examples (2016): **US Dollar** – Ecuador, El Salvador, Marshall Islands, Micronesia, Palau, Panama, Timor-Leste, Zimbabwe. **Euro** – Kosovo, Montenegro, San Marino. **Australian Dollar** – Kiribati, Nauru,Tuvalu.

- The major advantage of dollarization is to promote greater financial stability and lower inflation rate.

Hard Pegs – Currency Board

- A monetary regime based on an explicit legislative commitment to exchange domestic currency for a specified foreign currency at a fixed exchange rate, combined with restrictions on the issuing authority to ensure the fulfilment of its legal obligation.

- The domestic currency is issued only against foreign exchange and it must be fully backed by foreign assets.

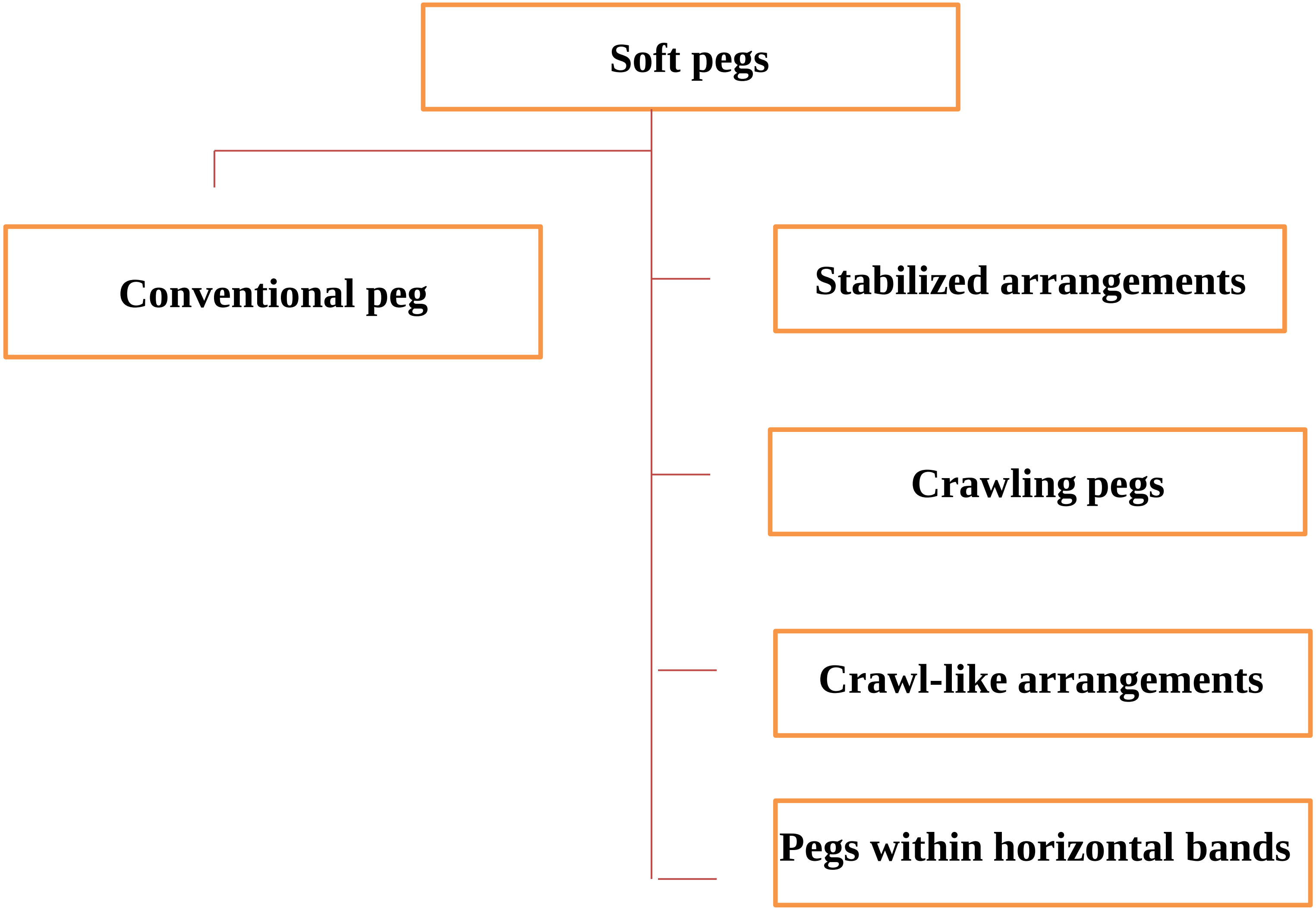
Hard Pegs – Currency Board

- The objectives of a central bank are subordinated to the exchange rate target.
- Traditional central bank functions, such as monetary control and lender of last resort are eliminated.
- There is little scope for discretionary monetary policy. Some flexibility may still be afforded, depending on how strict the rules of the boards are.

Currency Board (2016) – 11 Examples

- **US Dollar** – Antigua & Barbuda, Djibouti, Dominica, Grenada, Hong Kong, St. Kitts & Nevis, St. Lucia, St. Vincent & the Grenadines

- **Euro** – Bosnia and Herzegovina, Bulgaria,
- **Singapore Dollar** – Brunei Darussalam



Soft pegs

Conventional peg

Stabilized arrangements

Crawling pegs

Crawl-like arrangements

Pegs within horizontal bands

Conventional peg

- The country pegs its currency at a fixed rate to another currency or a basket of currencies, where the basket is formed from the currencies of major trading or financial partners and weights reflect the geographical distribution of trade, services, or capital flows.

- As the reference value rises and falls so does the currency pegged to it. The exchange rate may fluctuate within a narrow margin of less than ±1 percent around a central rate or the maximum and minimum value of the exchange rate may remain within a narrow margin of 2 percent for at least three months.

Conventional peg

- If a government wants to maintain a fixed exchange rate it either buys or sells its own currency on the open market. Governments must maintain reserves of foreign currencies.

- If the exchange rate drifts too far below the desired rate, the government buys its own currency off the market using its reserves. This places greater demand on the market and pushes up the price of the currency. If the exchange rate drifts too far above the desired rate, the opposite measures are taken.

- Traditional central banking functions are still possible, and the monetary authority can adjust the level of the exchange rate, although relatively infrequently.

Conventional peg (2016) – 44 Examples

- **US Dollar** – Aruba, Bahamas, Bahrain, Barbados, Belize, Curacao and Sint Maarten, Eritrea, Iraq, Jordan, Oman, Qatar, Saudi Arabia, Turkmenistan, United Arab Emirates, Venezuela
- **Euro** – Cape Verde, Comoros, Denmark, Sao Tome and Principe, Benin, Burkina Faso, Cote d'Ivoire, Guinea-Bissau, Mali, Niger, Senegal, Togo, Cameroon, Central African Rep., Chad, Congo, Equatorial Guinea, Gabon,
- **South African Rand** – Lesotho, Namibia, Swaziland.
- **Indian Rupee** – Bhutan, Nepal.
- **Composite -** Fiji, Kuwait, Libya, Morocco, Solomon Islands

Stabilized arrangement

- Classification as a stabilized arrangement entails a spot market exchange rate that remains within a margin of 2% for six months or more (with the exception of a specified number of outliers or step adjustments) and is not floating.
- The required margin of stability can be met either with respect to a single currency or a basket of currencies, where the anchor currency or the basket is ascertained or confirmed using statistical techniques.

Stabilized arrangement

- Classification as a stabilized arrangement requires that the statistical criteria are met and that the exchange rate remains stable as a result of official action (including structural market rigidities).
- The classification does not imply a policy commitment on the part of the country authorities.

(18) Stabilized arrangement – 2016

- **US Dollar** – Guyana, Lebanon, Maldives, Trinidad and Tobago,
- **Euro** – FYR Macedonia,
- **Composite** – Singapore, Vietnam,
- **Monetary aggregate target** – Bangladesh, Bolivia, Burundi, Congo Dem. Rep., Nigeria, Surinam, Yemen
- **Inflation-targeting framework** – Czech Rep.
- **Other** – Costa Rica, Lao PDR, Sudan

Crawling Pegs

- The currency is adjusted periodically in small amounts at a fixed rate or in response to changes in selective quantitative indicators, such as past inflation differentials vis-à-vis major trading partners, differentials between the target inflation and expected inflation in major trading partners, and so forth.

Crawling Pegs

- The rate of crawl can be set to generate inflation-adjusted changes in the currency (backward looking), or set at a preannounced fixed rate and/or below the projected inflation differentials (forward looking).
- Maintaining a credible crawling peg imposes constraints on monetary policy in a similar manner as a fixed peg system.
- 3 Examples (2016):
- **US Dollar** – Honduras, Nicaragua,
- **Other Currency Composite** – Botswana

Crawl-like arrangement

- For classification as a crawl-like arrangement, the exchange rate must remain within a narrow margin of 2% relative to a statistically identified trend for six months or more (with the exception of a specified number of outliers), and the exchange rate arrangement cannot be considered as floating.

Crawl-like arrangement

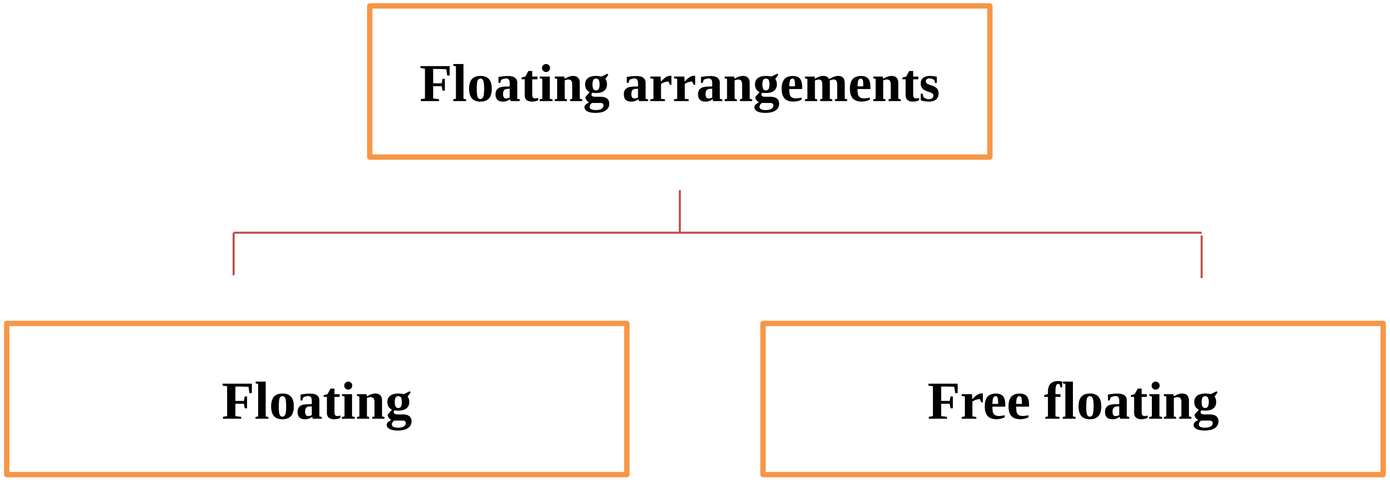
- Usually, a minimum rate of change greater than allowed under a stabilized (peg-like) arrangement is required; however, an arrangement is considered crawl-like with an annualized rate of change of at least 1%, provided the exchange rate appreciates or depreciates in a sufficiently monotonic and continuous manner.

10 Crawl-like arrangements, 2016

- **Euro** – Croatia,
- **Exchange rate anchor (composite)** – Iran
- **Monetary aggregate target** – Ethiopia, Uzbekistan,
- **Inflation targeting framework** – Dominican Republic
- **Other** – Jamaica, Mauritania, Papua New Guinea, Sri Lanka, Tunisia.

Pegged exchange rate within horizontal bands

- The value of the currency is maintained within certain margins of fluctuation of at least ±1 percent around a fixed central rate.
- There is a limited degree of monetary policy discretion, with the degree of discretion depending on the band width.
- Examples (1): **Other Currency Composite** – Tonga (2016).



Floating arrangements

Floating

Free floating

Floating

- A floating exchange rate is largely market determined, without an ascertainable or predictable path for the rate.

- Foreign exchange market intervention may be either direct or indirect and serves to moderate the rate of change and prevent undue fluctuations in the exchange rate, but policies targeting a specific level of the exchange rate are incompatible with floating.

Floating

- Indicators for managing the rate are broadly judgmental (e.g., balance of payments position, international reserves, parallel market developments).
- Floating arrangements may exhibit more or less exchange rate volatility, depending on the size of the shocks affecting the economy.

(40) Floating, 2016

- **Monetary aggregate target** – Afghanistan, Madagascar, Malawi, Mozambique, Seychelles, Sierra Leone, Tanzania,
- **Inflation targeting framework** – Albania, Armenia, Brazil, Colombia, Georgia, Ghana, Guatemala, Hungary, Iceland, India, Indonesia, Israel, Kazakhstan, Korea, Moldova, New Zealand, Paraguay, Peru, Philippines, Romania, Serbia, South Africa, Thailand, Turkey, Uganda, Uruguay,
- **Other** – Argentina, Kenya, Mauritius, Mongolia, Switzerland, Ukraine, Zambia

Free floating

- A floating exchange rate can be classified as free floating if intervention occurs only exceptionally and aims to address disorderly market conditions and if the authorities have provided information or data confirming that intervention has been limited to at most three instances in the previous six months, each lasting no more than three business days.
- If the information or data required are not available to the IMF staff, the arrangement is classified as floating.

(31) Free floating, 2016

- **Inflation targeting framework** Australia, Canada, Chile, Japan, Mexico, Norway, Poland, Russia, Sweden, United Kingdom
- **Other** – Somalia, United States, EMU (19) (Austria, Belgium, Cyprus, Estonia, Finland, France, Germany, Greece, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Portugal, Slovak Rep., Slovenia, Spain)

Other managed arrangements

- This category is a residual and is used when the exchange rate arrangement does not meet the criteria for any of the other categories.
- Arrangements characterized by frequent shifts in policies may fall into this category.

Managed arrangements (2016) – 20 Examples

- **US Dollar** – Cambodia, Liberia.
- **Other Currency Composite –** Syria.
- **Monetary Aggregate Target** – Algeria, Belarus, China, Gambia, Guinea, Myanmar, Rwanda, Tajikistan.
- **Other** – Angola, Azerbaijan, Egypt, Haiti, Kyrgyz Rep., Malaysia, Pakistan, South Sudan, Vanuatu.

Monetary Policy Frameworks

Inflation-Targeting Framework

Exchange Rate Anchor

Monetary Aggregate Anchor

Fund-Supported or Other Monetary Program

Other

Inflation-Targeting Framework

- This involves the public announcement of medium-term numerical targets for inflation with an institutional commitment by the monetary authority to achieve these targets.

- Additional key features include increased communication with the public and the markets about the plans and objectives of monetary policymakers and increased accountability of the central bank for obtaining its inflation objectives.

Inflation-Targeting Framework

- Monetary policy decisions are guided by the deviation of forecasts of future inflation from the announced inflation target, with the inflation forecast acting as the intermediate target of monetary policy.

Exchange Rate Anchor

- The monetary authority stands ready to buy/sell foreign exchange at given quoted rates to maintain the exchange rate at its preannounced level or range; the exchange rate serves as the nominal anchor or intermediate target of monetary policy.

- This type of regime covers exchange rate regimes with no separate legal tender; currency board arrangements; fixed pegs with and without bands; and crawling pegs with and without bands, where the rate of crawl is set in a forward-looking manner.

Monetary Aggregate Anchor

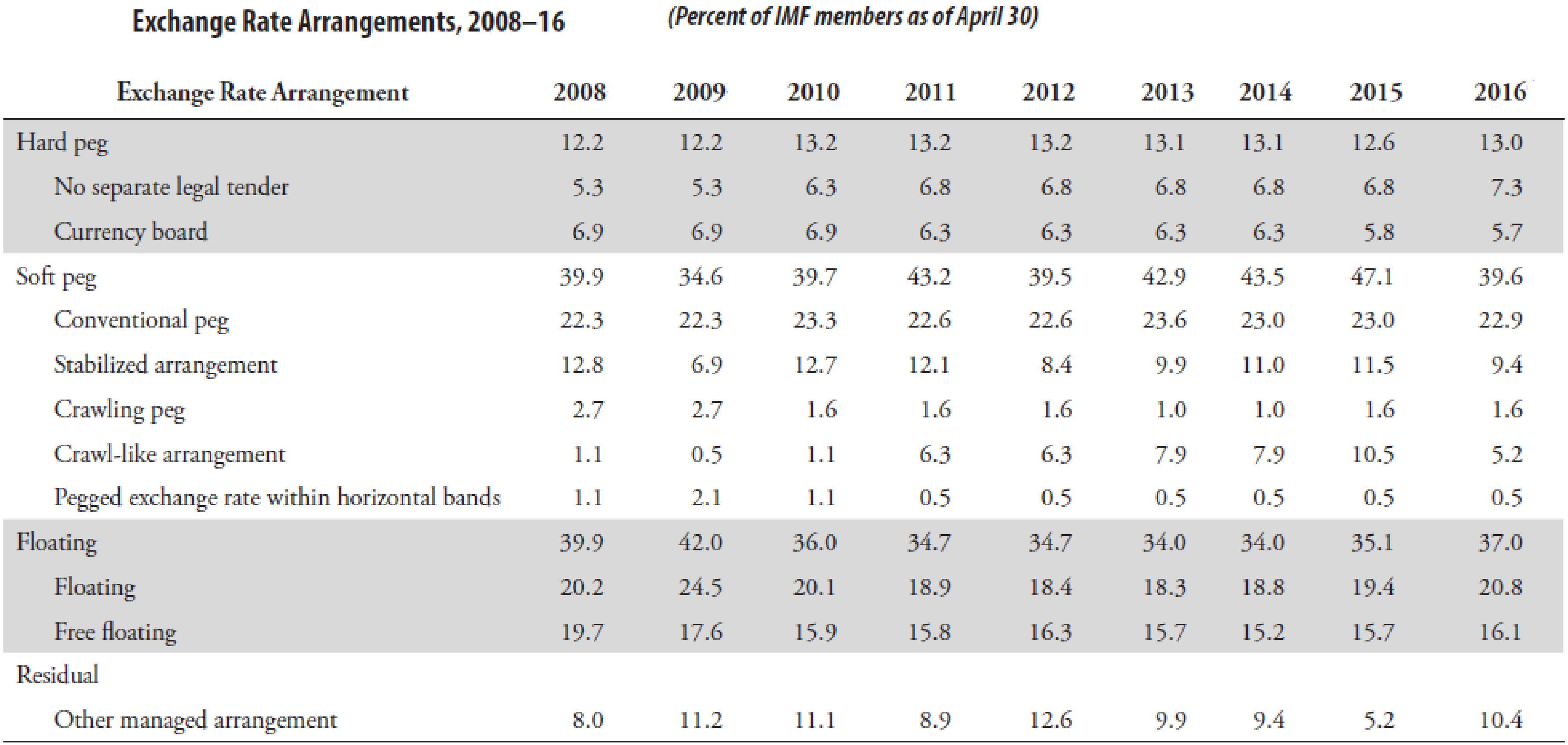
- The monetary authority uses its instruments to achieve a target growth rate for a monetary aggregate, such as reserve money, M1, and M2, and the targeted aggregate becomes the nominal anchor or intermediate target of monetary policy.

Fund-Supported or Other Monetary Program

- This involves implementation of monetary and exchange rate policies that establish floors for international reserves and ceilings for net domestic assets of the central bank.

Other

- The country has no explicitly stated nominal anchor but rather monitors various indicators in conducting monetary policy, or there is no relevant information available for the country.

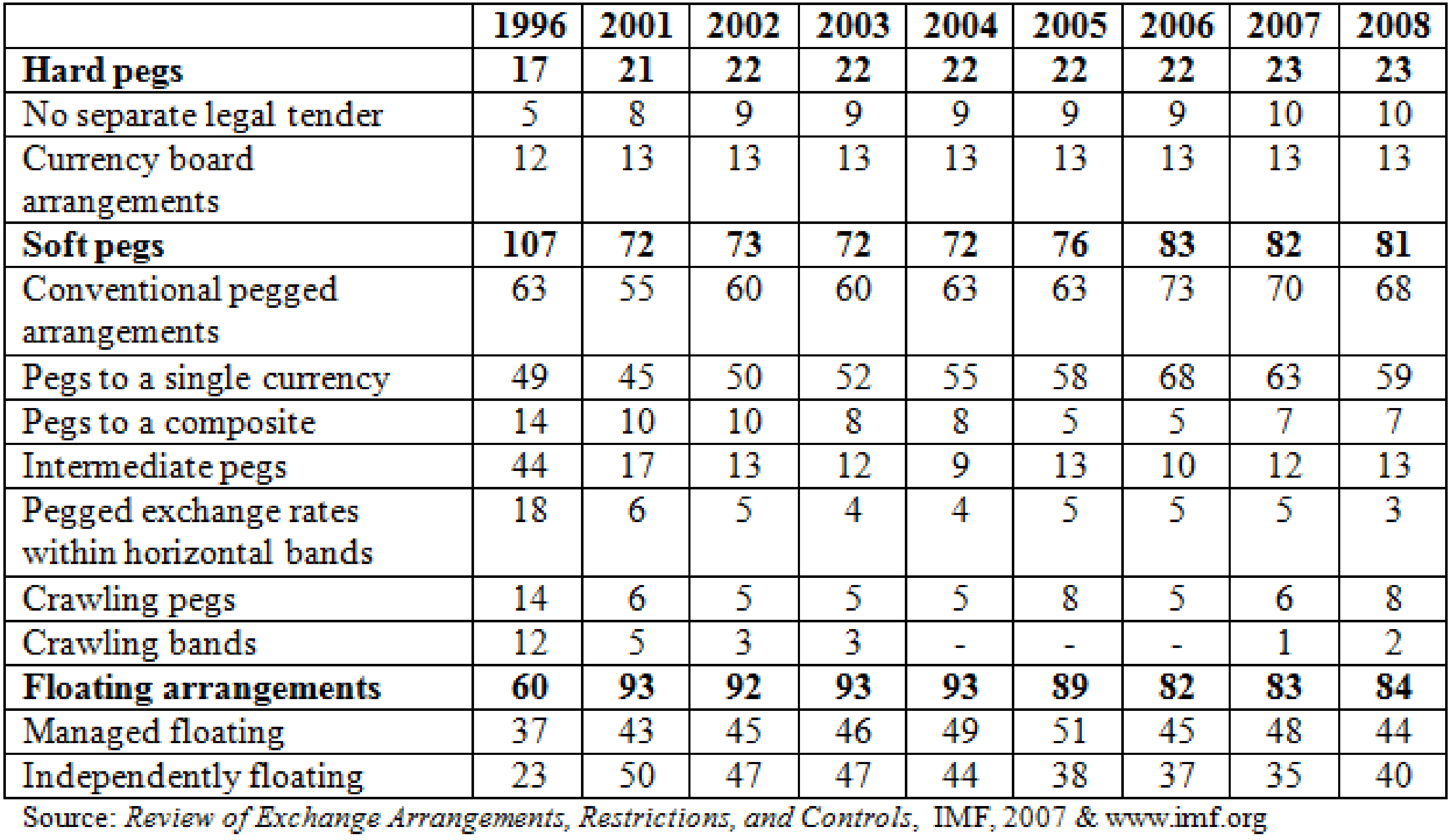


Exchange Rate Arrangements, 2008–16 *(Percent of IMF members as of April 30)*

Exchange Rate Arrangement	2008	2009	2010	2011	2012	2013	2014	2015	2016
Hard peg	12.2	12.2	13.2	13.2	13.2	13.1	13.1	12.6	13.0
No separate legal tender	5.3	5.3	6.3	6.8	6.8	6.8	6.8	6.8	7.3
Currency board	6.9	6.9	6.9	6.3	6.3	6.3	6.3	5.8	5.7
Soft peg	39.9	34.6	39.7	43.2	39.5	42.9	43.5	47.1	39.6
Conventional peg	22.3	22.3	23.3	22.6	22.6	23.6	23.0	23.0	22.9
Stabilized arrangement	12.8	6.9	12.7	12.1	8.4	9.9	11.0	11.5	9.4
Crawling peg	2.7	2.7	1.6	1.6	1.6	1.0	1.0	1.6	1.6
Crawl-like arrangement	1.1	0.5	1.1	6.3	6.3	7.9	7.9	10.5	5.2
Pegged exchange rate within horizontal bands	1.1	2.1	1.1	0.5	0.5	0.5	0.5	0.5	0.5
Floating	39.9	42.0	36.0	34.7	34.7	34.0	34.0	35.1	37.0
Floating	20.2	24.5	20.1	18.9	18.4	18.3	18.8	19.4	20.8
Free floating	19.7	17.6	15.9	15.8	16.3	15.7	15.2	15.7	16.1
Residual									
Other managed arrangement	8.0	11.2	11.1	8.9	12.6	9.9	9.4	5.2	10.4

Evolution of De Facto Exchange Arrangements, 1996–2008 (April)

(Number of countries; end-of-period data)



	1996	2001	2002	2003	2004	2005	2006	2007	2008
Hard pegs	**17**	**21**	**22**	**22**	**22**	**22**	**22**	**23**	**23**
No separate legal tender	5	8	9	9	9	9	9	10	10
Currency board arrangements	12	13	13	13	13	13	13	13	13
Soft pegs	**107**	**72**	**73**	**72**	**72**	**76**	**83**	**82**	**81**
Conventional pegged arrangements	63	55	60	60	63	63	73	70	68
Pegs to a single currency	49	45	50	52	55	58	68	63	59
Pegs to a composite	14	10	10	8	8	5	5	7	7
Intermediate pegs	44	17	13	12	9	13	10	12	13
Pegged exchange rates within horizontal bands	18	6	5	4	4	5	5	5	3
Crawling pegs	14	6	5	5	5	8	5	6	8
Crawling bands	12	5	3	3	-	-	-	1	2
Floating arrangements	**60**	**93**	**92**	**93**	**93**	**89**	**82**	**83**	**84**
Managed floating	37	43	45	46	49	51	45	48	44
Independently floating	23	50	47	47	44	38	37	35	40

Source: *Review of Exchange Arrangements, Restrictions, and Controls*, IMF, 2007 & www.imf.org