



# World Future Council

## Breaking the Funding Deadlock

Financing the renewable energy transition in less industrialized countries through the creation of new Special Drawing Rights

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# Overview



- 1. The problem:** Funding the RE-transition in less industrialized countries.
- 2. The idea:** Pre-distribute new funds.
- 3. The tool:** Introduction to SDRs.
- 4. The mechanics:** How to create the new funds.
- 5. The impact:** On the real economy and on the monetary system.
  - ➔ Is there a risk of inflation from new money?
- 6. Summary**



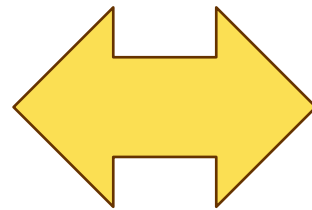
# 1. The problem



There is a market dilemma:

Climate change mitigation demands rapid transition from fossil to renewable energy based economic growth

→ within years



No first mover advantage in the market because of opportunity costs of lost fossil revenues + long amortization time of new RE infrastructure

→ within decades



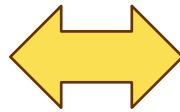
# 1. The Problem



Industrialized ↔ developing countries:

Opportunity costs of lost fossil revenues:

High



low

➡ In the short run, the South gains less than the North will lose.

➡ Mitigating climate change by curbing growth in the South is cheaper than through global RE transition.

➡ Pure market logic leads to a solution that leaves the South worse off in the short run. And the rest in the long run.



# 1. The Problem



“... while the market mechanism is a good enough device for making social decisions about unimportant matters such as (...) the flavors of ice cream, it cannot and should not be relied upon for important matters such as *the mitigation of climate change.*”

Paraphrased from Hyman P. Minsky, 1986

So, if not through market logic alone, how else can we align development and mitigation?



## 2. The Idea



PLEASE FIND  
ALTERNATIVE  
ROUTE

Pre-distribute  
new funds  
instead of  
redistributing  
existing funds  
or expected  
cash-flows

## 2. The Idea



Pure market logic of funding the RE transition:

- Use existing funds
- or expected returns.

But:

- Existing budgets face constraints.
- If expected returns would be sufficient, the RE transition would accelerate anyway.

Instead, create new funds.

Redistributing  
existing funds



Pre-distribute  
new funds



## 2. The Idea



The creation of money is nothing mysterious. It happens all day:

1. Most money is credit money. It comes into existence as credit is provided and is destroyed when the money is repaid.
2. Central banks can create money outright without creating debt. So, the FED is just pumping another \$ 600 billion of new money as unconditional aid into the financial sector.



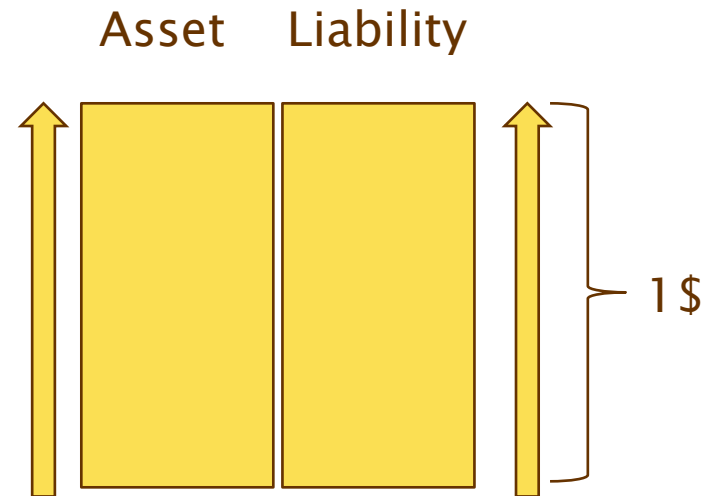
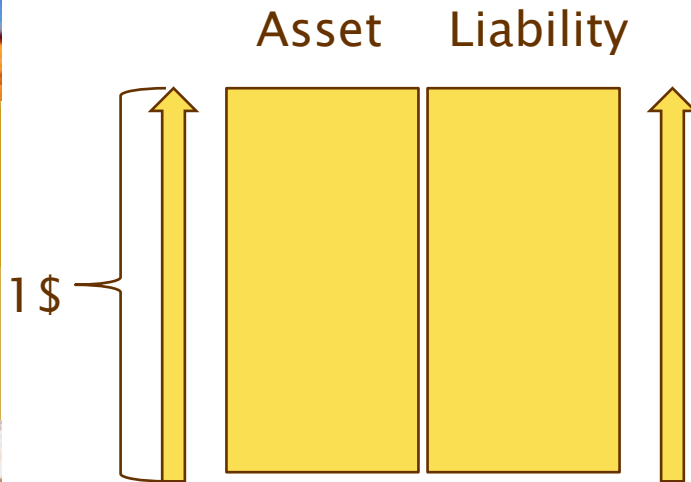
## 2. The Idea



Example 1: A bank creates 1 \$ (neglecting reserves)

Bank

Client



Bank later will get money plus interest back from client. That's an asset.

Bank writes 1 \$ on deposit account of client. That's debt owed to the client.

Client has 1 \$ on her deposit account.

Client has 1 \$ of debt to the bank.

## 2. The Idea



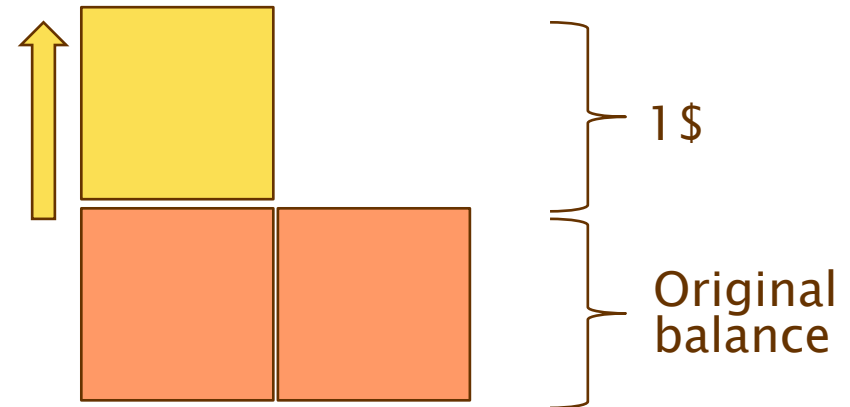
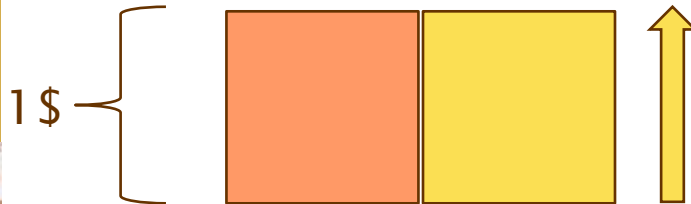
Example 2: A central bank creates 1 \$

FED

Bank

Asset    Liability

Asset    Liability



The Fed gets an asset (government bond) from the bank in turn for new money.

The FED writes 1 \$ on deposit account of a bank. That's debt owed to the bank.

Bank has 1 \$ on her deposit account at the FED.

## 2. The Idea



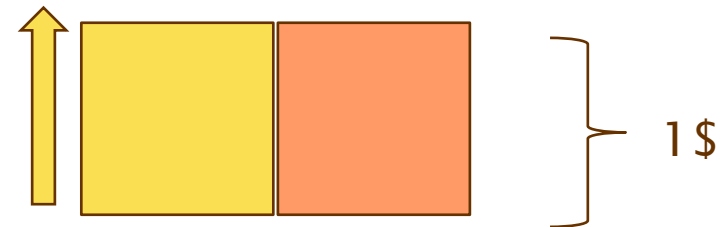
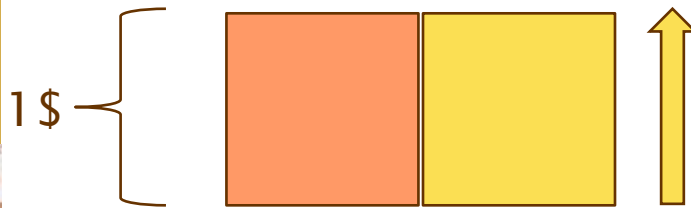
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## 2. The Idea



The FED and other central banks have created trillions of \$ as unconditional aid for the financial sector. Why not using the same tool to aid the RE transition in developing countries?

**This new money would not be unconditional aid. It would be paid only against performance – for new RE infrastructure.**

- It would not increase debt (interest free and non-repayable)
- It would spur new development.
- It would create new (green) jobs.
- It would use existing free production capacities.
- It would not be inflationary.



## 2. The Idea



What kind of money should be created to fund the global RE transition?

Global money.

There is global money.

Special Drawing Rights of the IMF.



### 3. The Tool

#### What is a Special Drawing Right (SDR)?

- “Money” of the IMF established in 1969
- Not a currency like the Dollar or the Euro
  - no banknotes in circulation
  - private persons cannot pay with it
- Nevertheless a convertible, international, reserve asset issued by the IMF and backed by the economic power of its members
- Until April 2009, the absolute value of all allocated SDRs was only about \$30 billion.
- Therefore, they were not very important and were widely unknown.

## 3. The Tool

### SDRs since April 2009

- In April 2009, the G20 Summit made a call for a general allocation worth \$250 billion in response to the global financial crisis.
- In addition, the members of the IMF decided to implement an old (1997) one-time allocation worth \$33 billion.
- As a result there are now newly created SDRs worth \$283 billion – all of a sudden, SDRs have been rediscovered.

### 3. The Tool



If the IMF can combat the financial crisis with newly created money, why should we not use the same tool to deal with the challenge of climate change?



# 3. The Tool



This is where our proposal begins:

## 4. The Mechanics

# How to Create the new Funds



## 4. The Mechanics

- The WFC proposal aims at using the ability of the IMF to create **new interest free money** to finance climate security investments
- Administration and governance should be assigned to a **Global Green Money Fund** with a **Supervisory Body** consisting of international organizations (e.g. UNDP, UNEP, IRENA) and national development financing institutions (DFI)

## 4. The Mechanics

### The GGMF and the Supervisory Body ...

- decide which projects in climate protection should be financed;
- trigger the creation of the required SDRs by the IMF once a project has been approved;
- and, then, change the new SDRs into the needed national currency at the respective central bank to cover the project's costs – in order to ensure the new money is only paid against performance;
- regularly control and evaluate projects.

## 4. The Mechanics



### How would the GGMF and the Supervisory Body work?

There are several options:

- Paying against performance could be done either in instalment or for completed projects fulfilling set criteria.
- The renewable energy infrastructure projects could either remain in the ownership of the GGMF or be transferred to the host countries.
- Part of the cash flow from installed infrastructure could feed back into the GGMF



## 4. The Mechanics

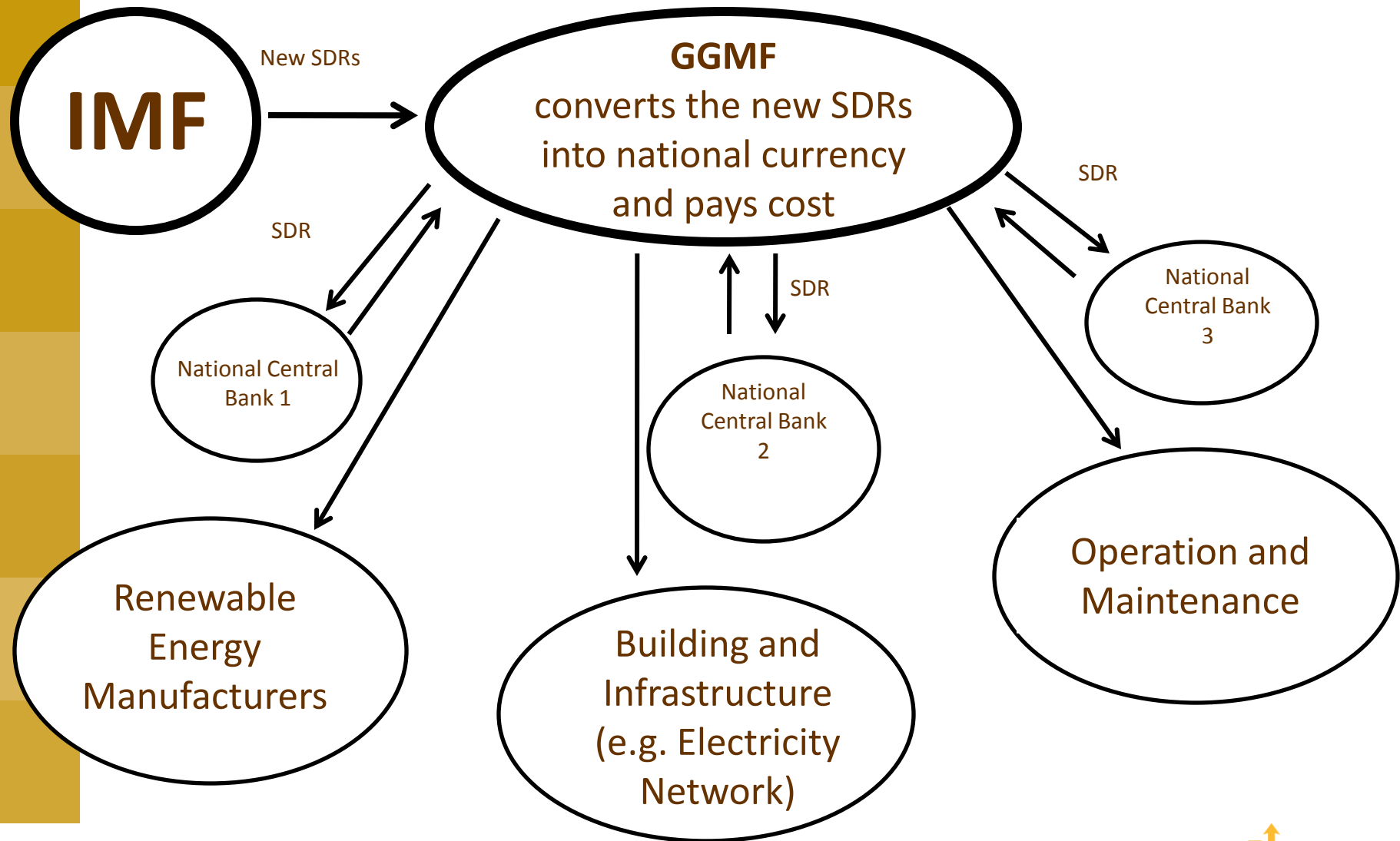
### The IMF and the allocation of SDR

- SDRs are allocated to the member states according to the IMF Quota System.
- Members, therefore, need to agree for the IMF to pass them to the GGMP implementation.
- To enhance support of large members with large quota, member governments could retain a part (10 to 20 Percent) for national climate protection and climate justice projects.

## 4. The Mechanics: First flows of a new SDR allocation I



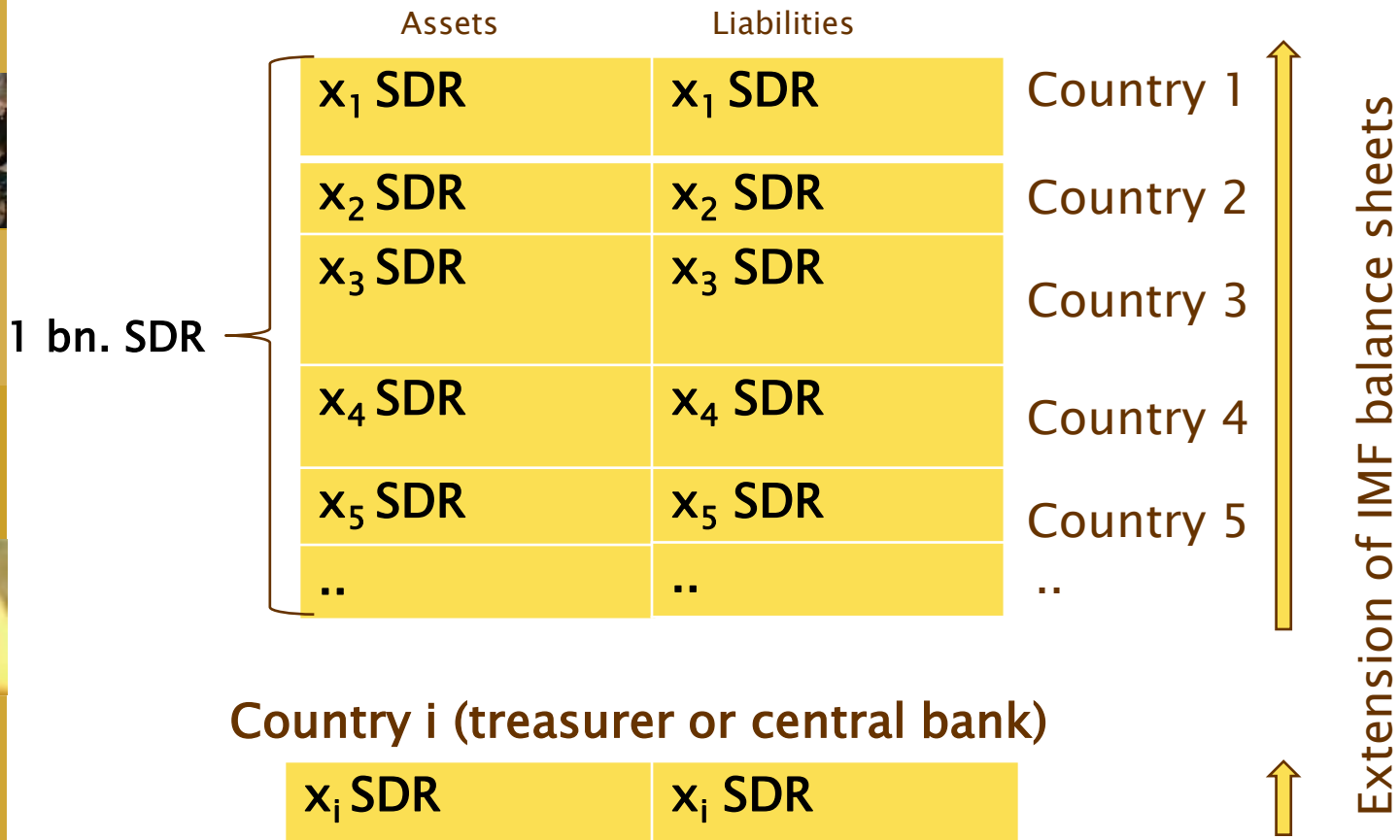
## 4. The Mechanics: First flows of a new SDR allocation II



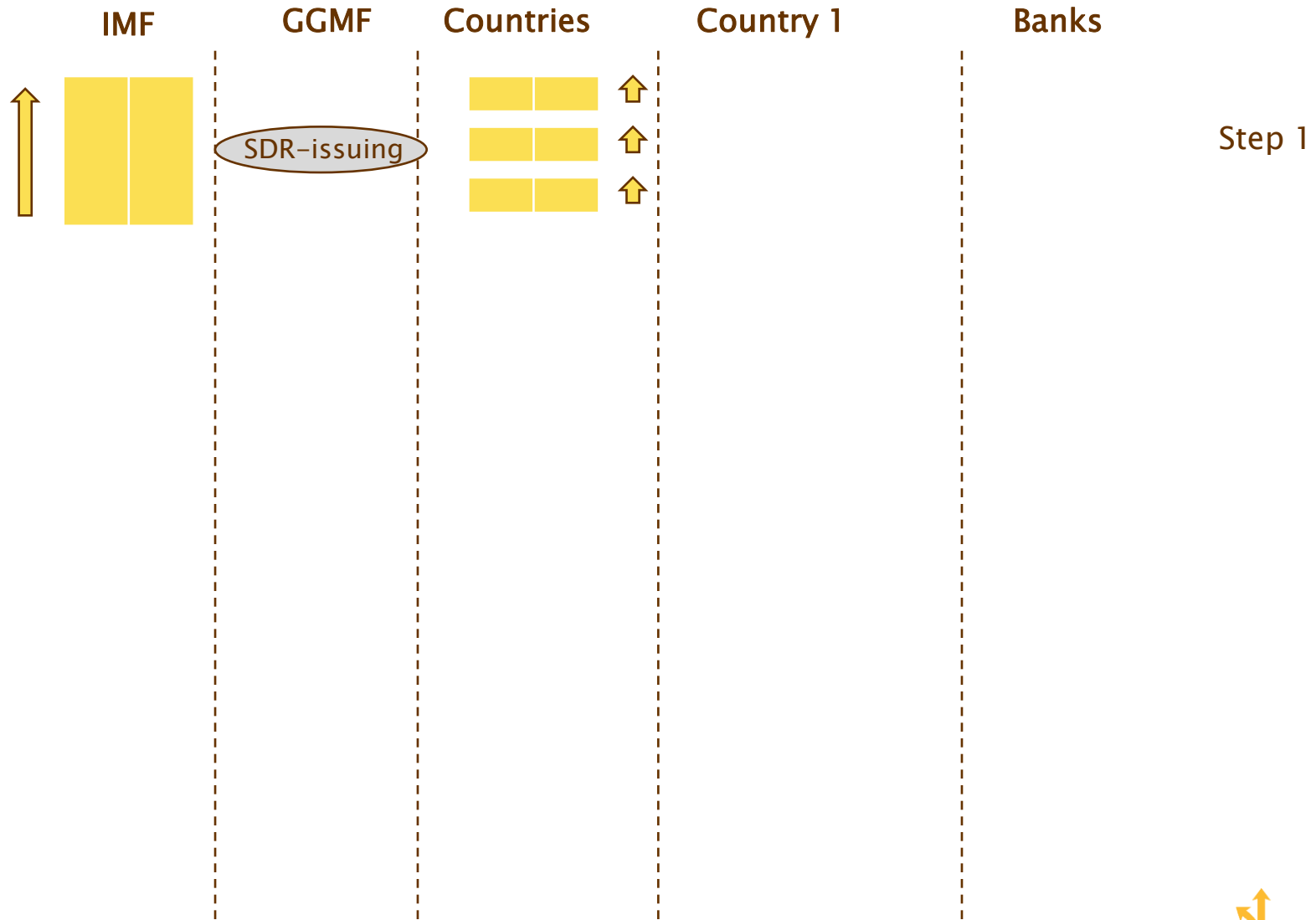
# 4. The Method: Example

## Step 1: Issuing of 1 bn. new SDR

IMF



# 4. The Method: Example



# 4. The Method: Example

## Step 2: SDR-transfer to Global Green Money Fund

### GGMF

Assets	Liabilities
1 bn. SDR	1 bn. SDR

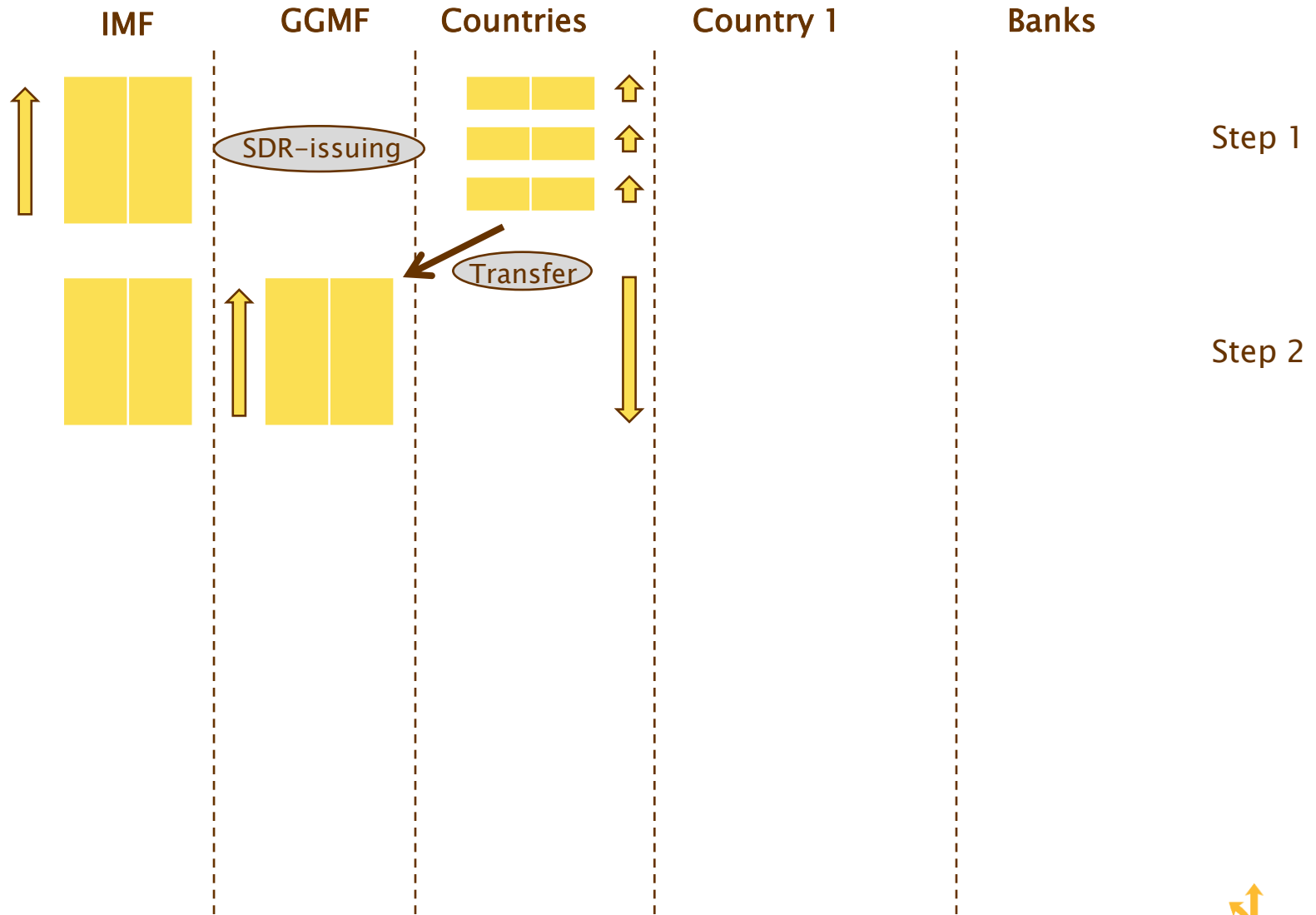
Country i

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↑  
Extension of GGMF balance sheet

↓  
Shrinking of Balance sheet

# 4. The Method: Example



## 4. The Method: Example

Step 3: RE–project cost of 10 MM. SDR – money needed in currency 1

### GGMF

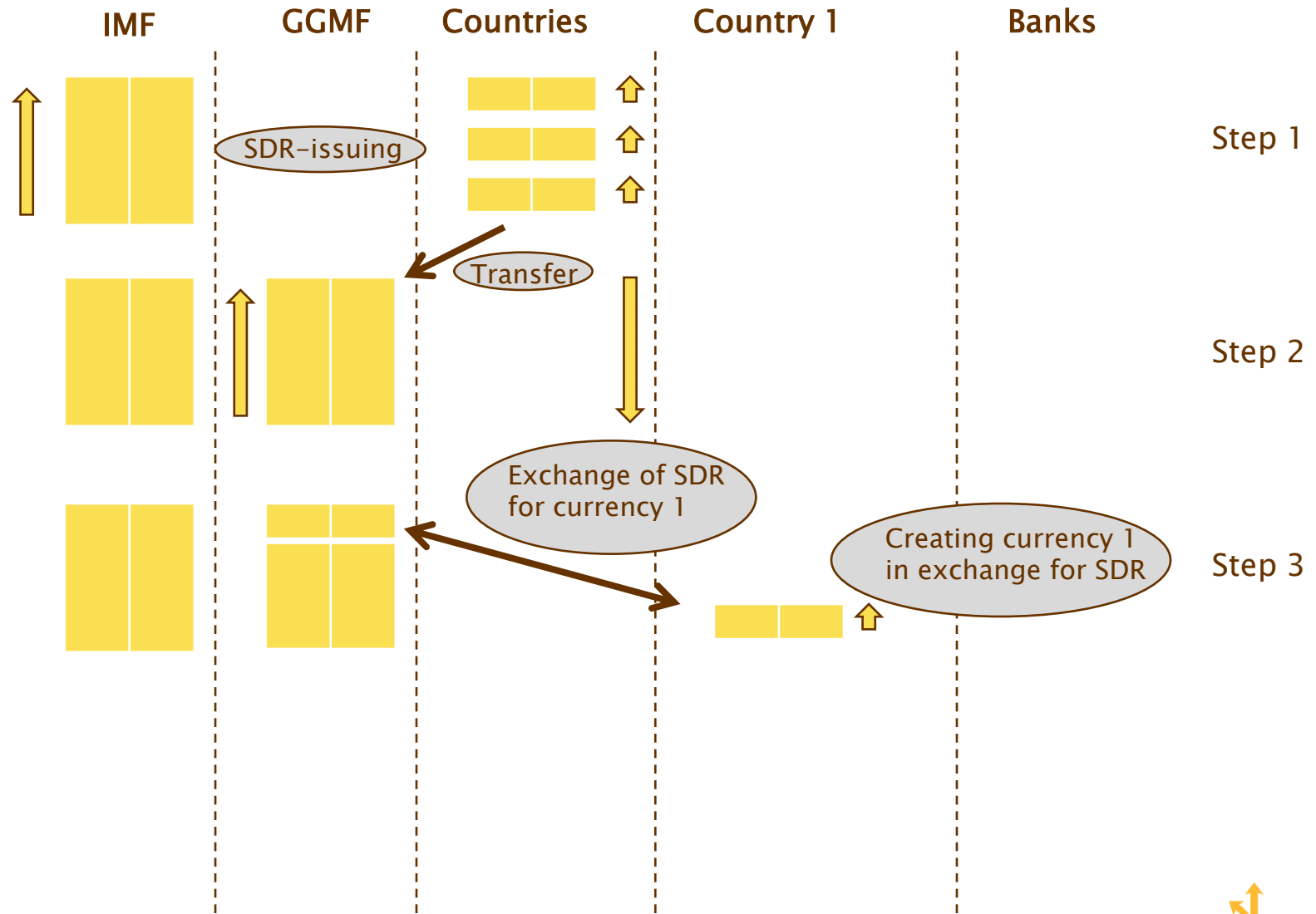
Assets	Liabilities
10 MM. SDR in currency 1	1 bn. SDR
0,99 bn. SDR	

### Country 1

10 MM. SDR	10 MM SDR in currency 1
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↑ Extension of Balance sheet

# 4. The Method: Example



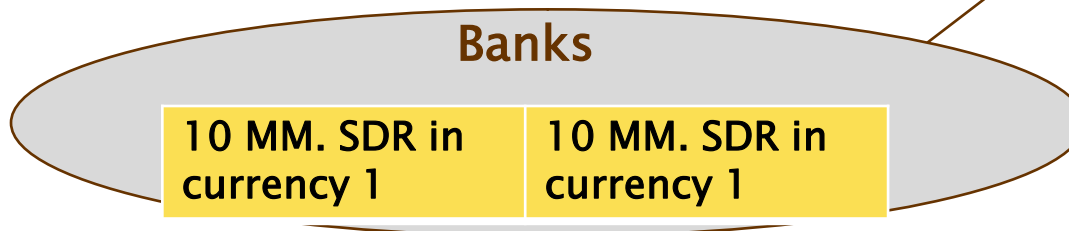
# 4. The Method: Example

## Step 4: Spending of money for RE-project GGMF

Assets	Liabilities
Ownership of RE-infrastructure	1 bn. SDR
0,99 bn. SDR	

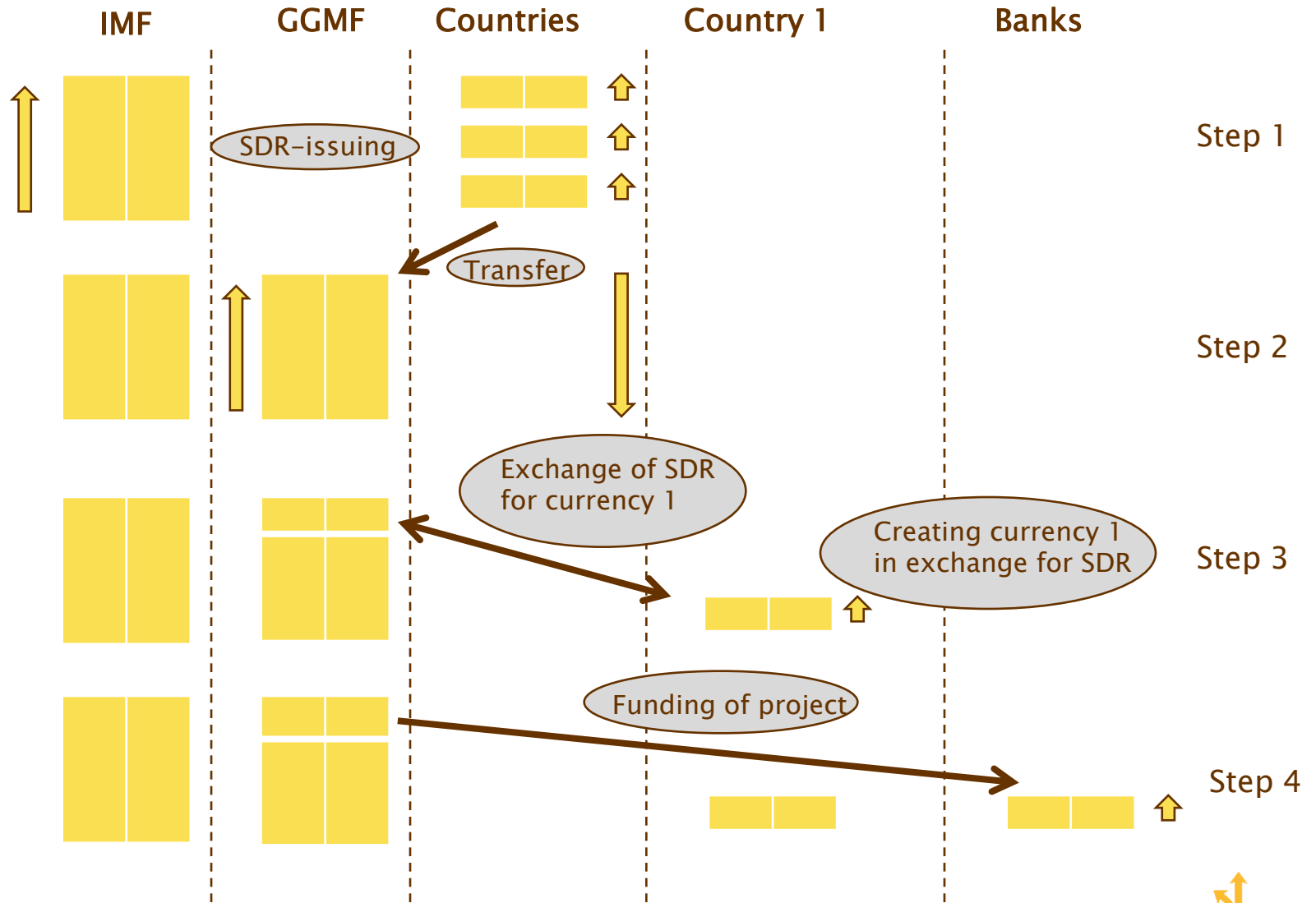
100% of new RE-infrastructure in turn for 10 MM. SDR in currency 1

Money spent on projects ends up as deposits at banks. Banks get cash – new assets are reserves at the central bank.



Extension of Balance sheet

# 4. The Method: Example



## 4. The Method: Example

Step 5: There are several ways to proceed:

- The ownership of the RE infrastructure can be transferred to the host country (together with the corresponding amount of SDR outstanding)
- The spent SDRs can be eliminated from balance sheets as they are merely a book-keeping tool. The newly created money exists now in terms of the currencies needed.



## 5. The Impact



But isn't that too much money?

→ “Inflation Angst”

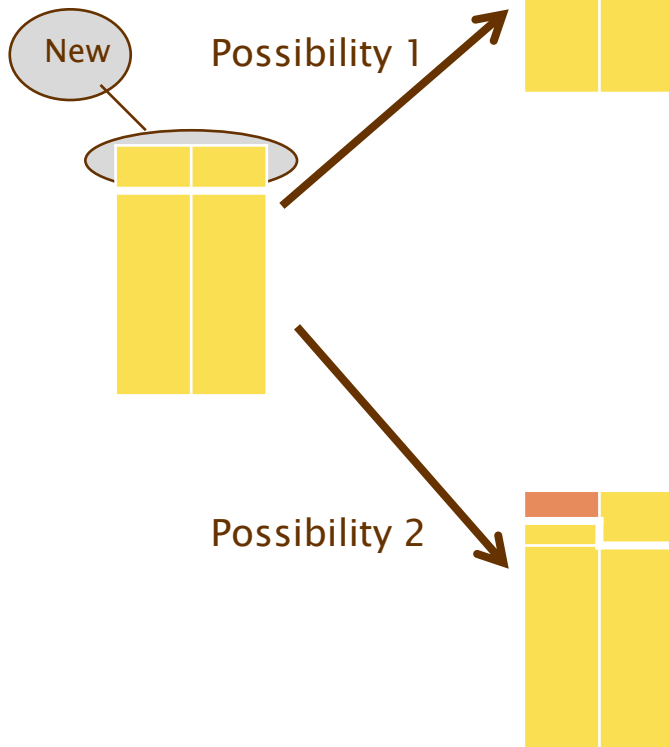
The creation of SDRs will not lead to inflation.  
This can be shown in two steps:

1. By looking at the real economy
2. By looking at the monetary system



# 5. The Impact

What can banks do with new deposits and reserves?



Banks use new reserves to create even more money ...

- either by providing credits;  
⇒ Money grows in line with economic activity. Banks would have needed the new reserves anyway to provide new loans.
- or by investing in financial markets.  
⇒ Danger of asset bubbles. Has to be avoided anyway.

Banks don't need the reserves. In that case they will buy interest bearing assets (government bonds) in exchange for reserves  
⇒ money base is reduced.

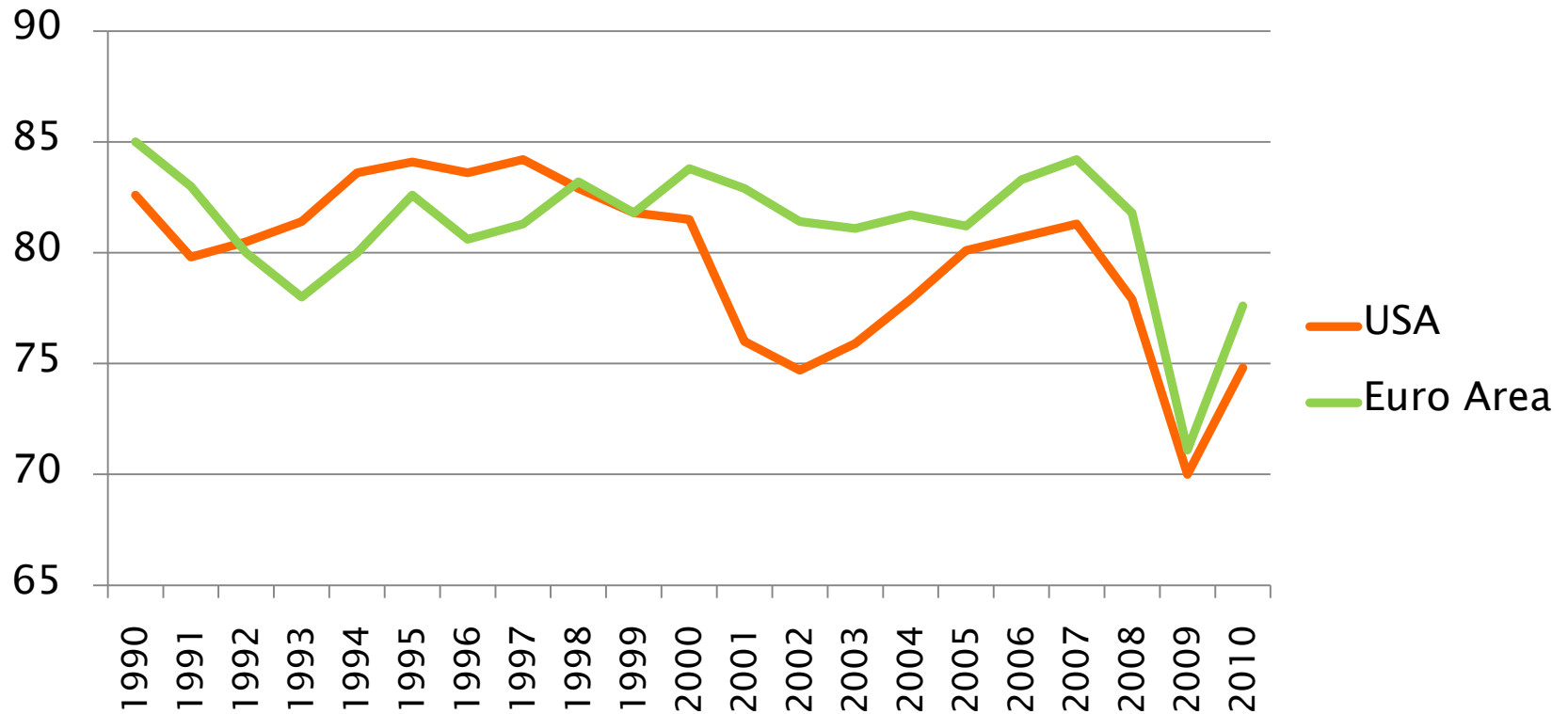
## 5. The Impact

### New SDRs and the Real Economy

1. Large under-utilized capacities, a huge output gap in most developed economies:
2. New demand will tend to raise prices only if there is full employment in industry and a tight labour market.
3. Industries usually increase capacities if their turnover and rate of utilisation rise.
4. In a normal economic situation, rising costs (not rising demand) have strongest impact on prices.
5. New demand in specific branches could indeed be so high that prices rise. But this will not lead to higher overall inflation rate.

# 5. The Impact

## Capacity utilization (%)

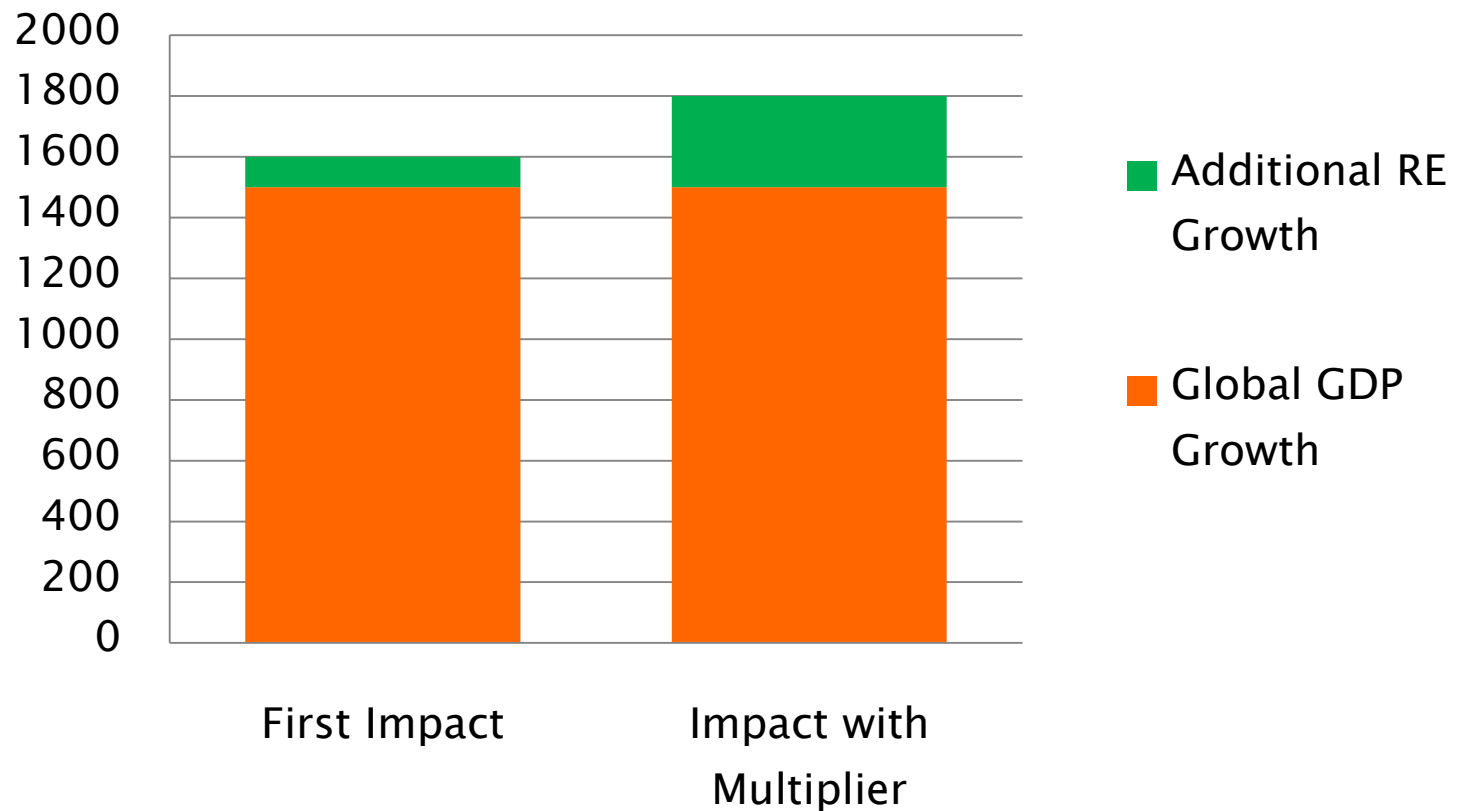


USA: Capacity utilization in manufacturing (Fed, Statistical Release, G17)

Euro Area: Capacity utilization in total industry (ECB, Monthly Bulletins)

# 5. The Impact

## Estimated Global GDP Growth and additional Renewable Energy Growth (\$, billion)



## 5. The Impact

What happens if industrial capacity returns to normal utilization, and demand continues to rise?

This will be unlikely to cause inflation:

Companies usually do not produce at full capacity and fix prices as a mark-up on costs. An additional demand will usually be met at current prices.



## 5. The Impact

### The impact on the Monetary System from new SDRs

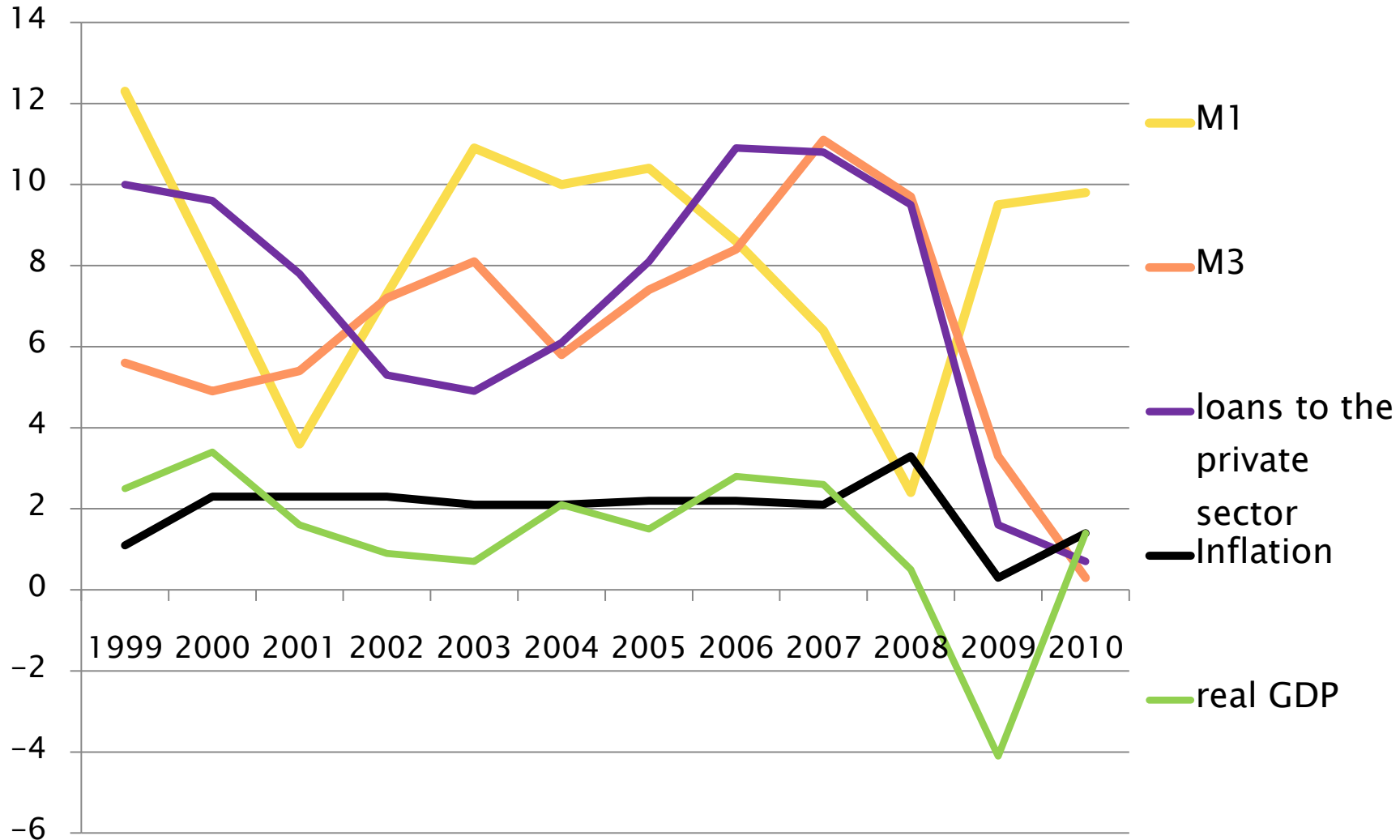
Isn't a rise in the money stock the cause for a rise in prices?

No.

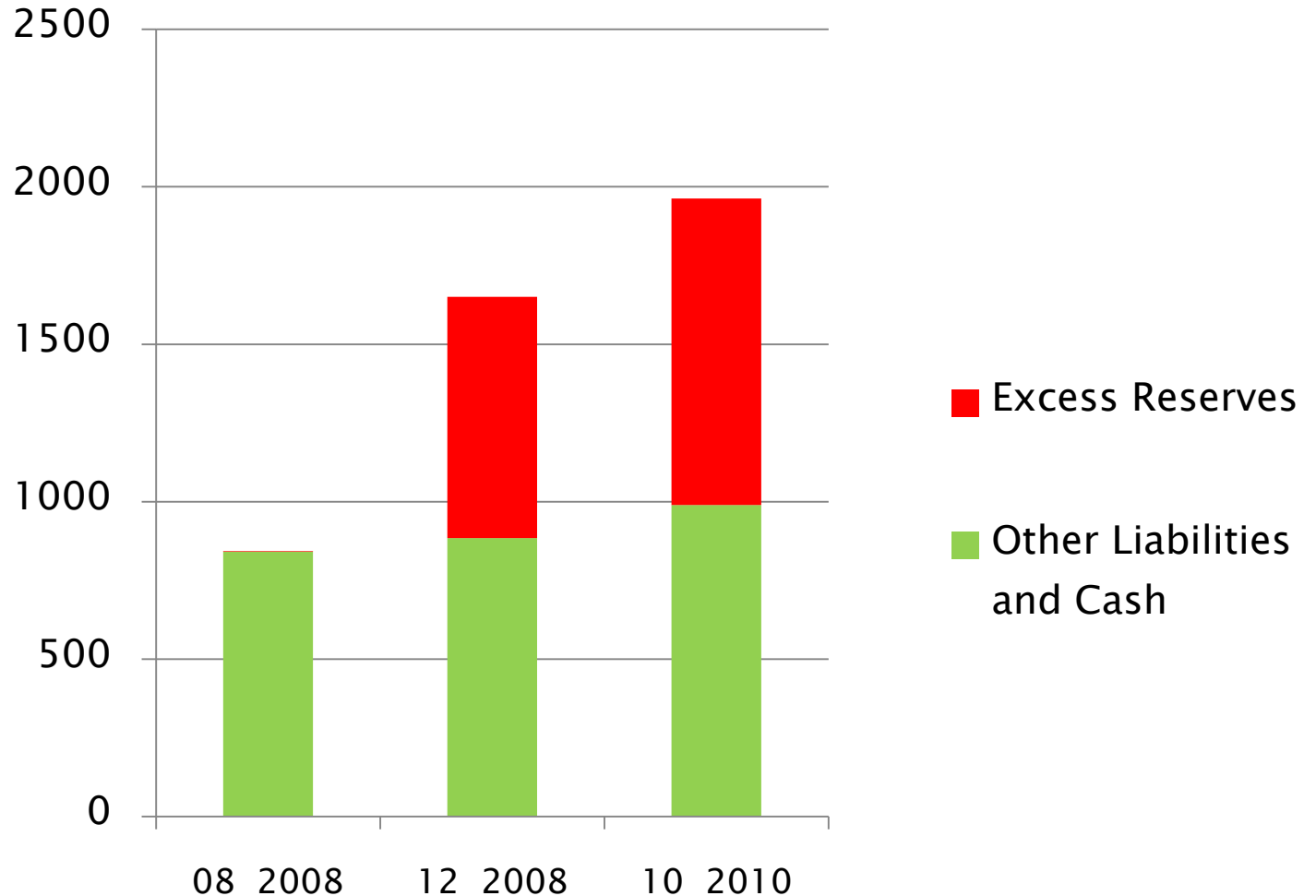
There is no direct link between an increase in the money stock and an increase in prices.



# Euro Area, growth in %



# Monetary Base and Excess Reserves (Fed, \$ billion)



## 5. The Impact

The total money stock is determined by the money demand from the economy:

Economy needs money



Banks provide money (in terms of credit)



Banks need reserves to deliver money



Central banks provide reserves.



## 5. The Impact

So, it's true: New SDRs increase the monetary bases of the IMF members temporarily.

But after an adjustment process the monetary bases including new SDRs are not bigger than without SDRs, because the demand for money is not bigger than before – except along the lines of new economic activity.

At the end of the adjustment process there is no excess money in the system.



## 5. The Impact

There would be neither more nor less inflation in the world with the use of newly created SDRs. Thus, there is no compelling reason not to use them to inhibit climate change.



## 6. Summary



1. SDRs are a means to break the funding deadlock without raising national debt burdens.
2. Full financing of projects can start now.
3. They can be used for the financing of climate protection projects in developing countries.
4. If new SDRs are used correctly (only paid against performance), they will not lead to inflation.
5. The Issuing of new SDR can trigger new development in developing countries and, at the same time, mitigate climate change.



... and what can we do with the new money?



# Thank you for your attention!

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