



# **Establishing the baseline for capital expenditure**

**PEMPAL MEETING, DECEMBER 2, 2021**

# Outline

1. The trend : baselines on capital expenditure are often over-estimated
2. Reminder : where does capital expenditure come from (prior commitments)
3. Commitment authorizations, payment authorizations & how to refine the baseline:
  1. 1<sup>st</sup> step
  2. 2<sup>nd</sup> step
  3. 3<sup>rd</sup> step
4. Conclusion & final tip

# **1. The trend : baselines on capital expenditure are often over-estimated**

# **1. CAPEX baselines are often overestimated**

Large and complex projects may induce cost overruns. Nonetheless, when it comes to budgeting, there is a tendency to overestimate CAPEX payments:

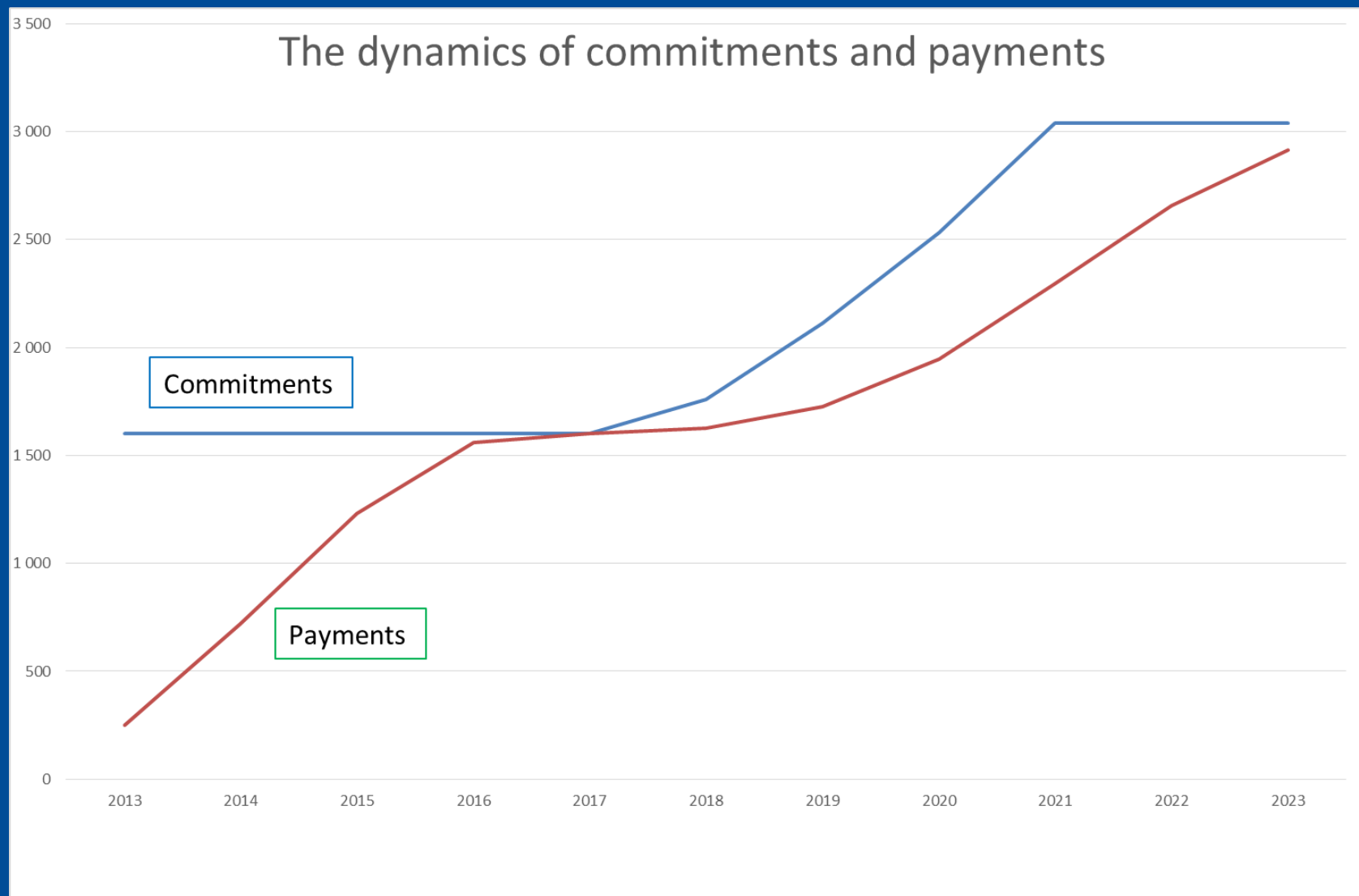
- **Insufficient knowledge of real commitments**
  - **How many projects are “alive” ?**
  - **What are the effective amounts contracted ?**
    - ➔ **Data collection and analysis on CAPEX is often deficient**
- **Over-optimism about the rhythm of capital expenditure:**
  - **Capital expenditures are often a priority of Governments & line ministries**
  - **But capital expenditure is often complex and thus slow (design of the project, tendering process, implementation hazards, legal issues, ...)**
    - ➔ **Tension between ambitions and the realities of CAPEX management**

## **2. Reminder : where does capital expenditure come from (prior commitments)**

## 2. The CAPEX baseline is mainly determined by past commitments

- A truth often overlooked : in principle, there can be no payment without prior commitment, be it recorded or not
  - A general budget rule
  - Especially important for CAPEX :
    - the legal commitment (signature of a contract) triggers a series of payments that can spread over a number of years
    - with CAPEX, the baseline usually represents the major part of the expenditure for the year
- ➔ An obvious need for a budget instrument to closely follow-up commitments, especially on capital expenditure

## 2. Commitments and payments, an illustration : not as straightforward as it seems



### **3. Commitment authorizations, payment authorizations & how to refine the baseline**



### 3. Commitment Appropriations, Payment Appropriations, a powerful tool for budgeting CAPEX & assessing CAPEX baselines

- Definitions:
  - Commitment appropriations (CA) : authorizations that can be used only for CAPEX commitments ; whatever their form (they may not be appropriations), they set the upper limit for CAPEX commitments in a year.
  - Payment appropriations (PA) : appropriations that can be used only for CAPEX payments
- Relation between CA and PA ; example of a 3 year project:
  - Year 1: Project launched, Contract signed = Commitment made → Commitment recorded by use of a CA.
  - Year 1: 1<sup>st</sup> payment instalment
  - Year 2: 2<sup>nd</sup> payment instalment
  - Year 3: 3<sup>rd</sup> payment instalment



### 3. Step 1 : assess payment profile

- Payment profile = the manner in which payments relating to a project (a commitment) spread over budget years :
  - For a 1-year investment project, the payment profile would be : 100%
  - For a 3-year investment project : 33% / 33% / 34%, or 10% / 60% / 30%, or 20% / 60% / 20%
- 1<sup>st</sup> example : 1 five-year project

	Year 1	Year 2	Year 3	Year 4	Year 5	Total					
CA/PA payment profile	10%	20%	30%	30%	10%	100%					
Million €	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	
Voted CA (commitments)	1 200										
PA	120	240	360	360	120	0	0	0	0	0	

Baseline

### 3. Step 1 : assess payment profile

- 2<sup>nd</sup> example: permanent or long-term investment program

	Year 1	Year 2	Year 3	Year 4	Year 5	Total					
CA/PA payment profile	20%	50%	30%			100%					
Million €	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	
Voted CA (commitments)	600	650	700	750	800	800	800	800	800	800	
PA	120	300	180								
		130	325	195							
			140	350	210						
				150	375	225					
					160	400	240				
						160	400	240			
							160	400	240		
								160	400	240	
									160	400	240
										160	400
											160
Total PA	120	430	645	695	745	785	800	800	800	800	800

Baseline  
(option1)

Baseline  
(option 2)

### **3. Step 1 : assess payment profile**

- **To assess the baseline, there should be a discussion / agreement between MoF and Line Ministries on the payment profile :**
  - **Line Ministries are often over-optimistic on the timeliness of their CAPEX : a 25% / 60% / 15% profile may more likely be 15% / 50% / 35%**
  - **It is important to set this distribution profile which is an important assumption for setting the baseline (and new CAPEX appropriations)**
  - **It is usually necessary to periodically re-assess the payment profile :**
    - **Because a project has progressed more slowly than forecast**
    - **Because over time, a permanent CAPEX line (e.g. road maintenance) may reveal a spending pattern slightly different from initial expectations**

## 4. Step 2 : make sure you take into account actual commitments

- Actual commitments are often below the budget authorization, which has consequences on the baseline. In other words : stick to the execution.

	Year 1	Year 2	Year 3	Year 4	Year 5	Total					
CA/PA payment profile	20%	50%	30%			100%					
Million €	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	
Voted CA	600	650	700	750	800	800	800	800	800	800	800
Spent CA (commitments)	558 93%	611 94%	658 94%	705 94%	760 95%	760 95%	760 95%	760 95%	760 95%	760 95%	760 95%
PA	111,6	279 122,2	167 306 132	183 329 141	197 353 152	212 380 152	228 380 152	228 380 152	228 380 152	228 380 152	228 380 152
<div>Observation : recurrent underutilization of CA</div> <div>Baseline (option1)</div> <div>Baseline (option 2)</div> <div>Assumption : underutilization will continue</div>											
Total PA	112	401	605	653	702	744	760	760	760	760	760
<div>Execution &amp; execution forecast</div> <div>PA opened taking into account past executions</div>											

## 4. Step 3 : make sure you take into account actual payments

- Actual payments often do not amount to 100% of commitments

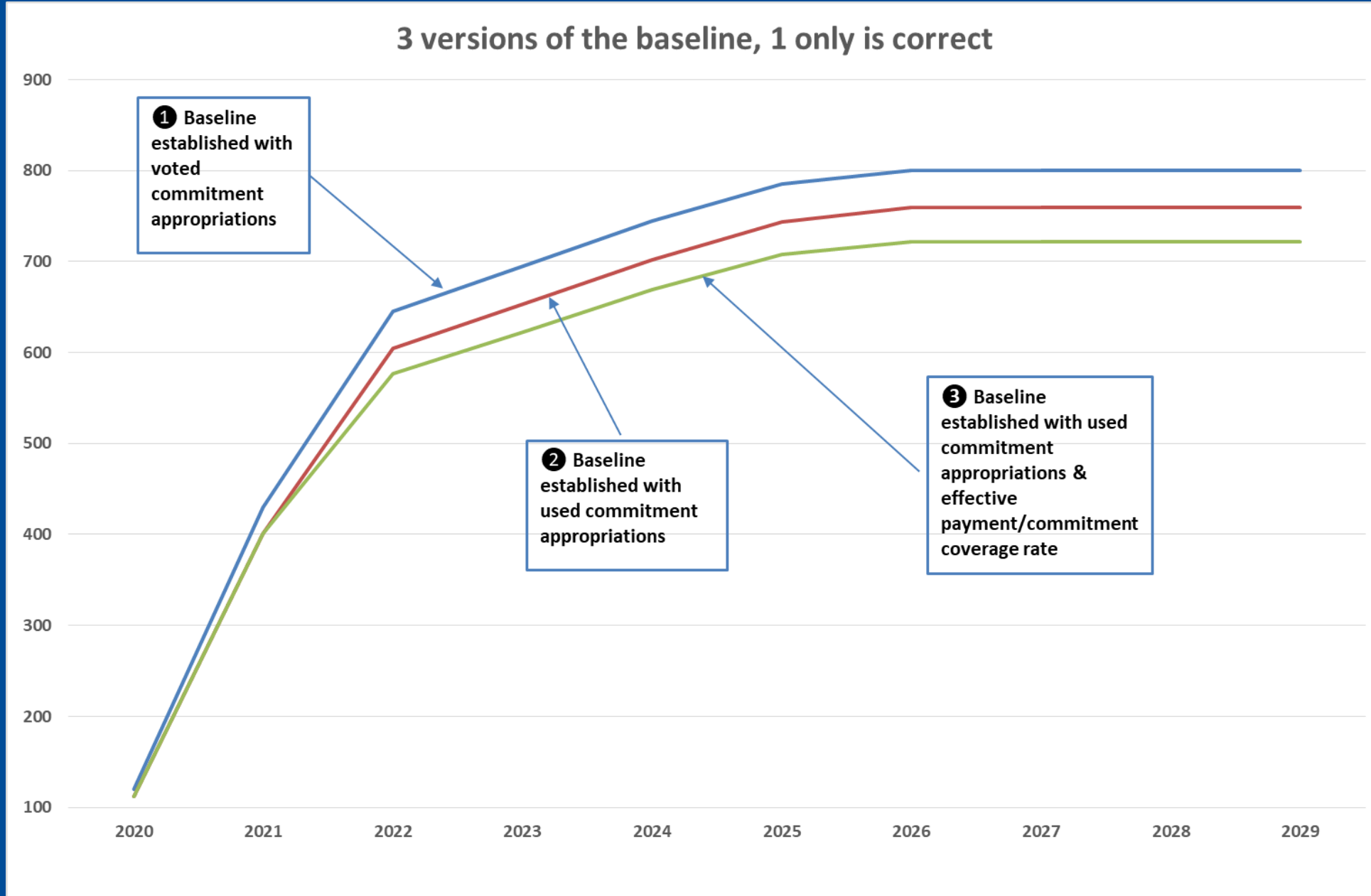
	Year 1	Year 2	Year 3	Year 4	Year 5	Total					
CA/PA payment profile	20%	50%	25%			95%					
Million €	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	
CA voted	600	650	700	750	800	800	800	800	800	800	800
CA spent (commitments)	558 93%	611 94%	658 94%	705 94%	760 95%	760 95%	760 95%	760 95%	760 95%	760 95%	760 95%
PA	111,6	279 122,2	140 306 132	153 329 141	165 353 152	176 380 152	190 380 152	190 380 152	190 380 152	190 380 152	190 380 152
Observation : cover rate of commitments by payments < 100%		Baseline (option 2)									
Baseline (option 1)											
Total PA	112	401	577	623	669	708	722	722	722	722	722
Execution & execution forecast						PA opened taking into account past executions					

Assumption for coverage rate of commitments by payments is modified

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# **Conclusion & final tip**

# Three versions of the baseline, one only is correct





## 4. One last tip

There may be some carried-over appropriations

→ Deduct them from the baseline

	2020	2021	2022	2023
<b>Baseline</b>		<b>401</b>	<b>577</b>	<b>623</b>
Carry-over from 2020	30			
Utilization of carry-over		-10	-10	-10
<b>Ultimate baseline</b>		<b>391</b>	<b>567</b>	<b>613</b>

**Thank you**