



## FEEDBACK TO EBA

# ***Software should not be deducted from regulatory capital***

*Capitalised software operating assets are conservatively valued on a “going concern” basis in the accounting balance sheet. Basel regulations are ambiguous and accounting labels can confuse. We believe that software operating assets should not be deducted – as is already the case in the US and other jurisdictions. However, a prudential adjustment in the form of a hard cap (say, five years) on economic lifespan and amortisation of capital value might make sense.*

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It is with great pleasure that the Bank Advisory team submits its independent feedback to the EBA relating to EBA/CP/2020/11 dated 9 June 2020.

Our team is a client-facing team that sits within BNP Paribas’ Global Markets division, part of Corporate & Institutional Banking. We serve clients who are banks, helping them to improve the performance and resilience of their businesses. Part of our remit is to help clients understand regulations and regulatory changes, and the impact on their businesses. Since we serve the industry as a whole, we also from time to time share our perspectives as a market participant with regulators, in the hope that our input can be beneficial to all.

We cannot stress enough that these independent perspectives are not meant to represent the views of BNP Paribas SA itself, which are shared with the regulatory authorities separately and through different channels. In fact, it is hardly surprising that our team’s personal views, based on a different scope, set of experiences and objectives, will often differ from the views of BNP Paribas SA.

On the topic of the deduction of capitalised software assets, we thought it might be particularly useful to give feedback to the EBA’s recent proposal. Our opinions are principled, yet are meant to be constructive and pragmatic in the context of the current RTS. However, we also think that identifying longer-term considerations, such as Basel standards and EU legislative improvements are important and have done so.

### **Summary of our arguments**

- **Banks should be able to prudently capitalise investment in software**
- **The carrying value in the accounts is – generally – already prudent**
- **Operating assets should not be systematically valued at fire-sale or run-off values in the prudential balance sheet**
- **Basel III (2009) applied a “gone concern” valuation approach for intangibles, but intangible assets are not all the same: software is a key operating asset for the 21<sup>st</sup> century!**
- **A proper “Level Playing Field” is imperative, with global non-deduction of software. A Basel clarification would help**
- **To meet the legislative requirements of the amended CRR, the EBA is right to consider a cap on the assumed economic life of software in the prudential balance sheet: we suggest five years rather than the two years in the proposal**

### **Background**

The following comments set out our argument for the inclusion of the value of software in regulatory capital, at the same value as it is carried on the accounting balance sheet without deduction. We think it’s wrong to see software as a similar asset to goodwill or DTAs<sup>1</sup>. In fact, software is an important

<sup>1</sup> Deferred tax assets and especially those that rely upon future profitability



operating asset of a bank and should be treated as such, just like operating real estate or computer hardware, even though it has no physical mass (who cares about weight?). At the same time, we recognise the need for prudence as set out in the amended CRR and agree with the EBA’s approach with a cap on amortisation timeframes. We suggest a more realistic five-year cap.

**Banks should be able to prudently capitalise investment in software**

Software is an important and growing cost for banks. We estimate that for European banks, it is growing at 12% CAGR<sup>2</sup>. This importance is not disputed by the EBA or the EU legislators and is highlighted in the consultation paper on several occasions. For example, the EBA notes that *“a too short amortisation period could negatively affect large scale software and IT infrastructure investments with longer useful life that could contribute to improve the EU banking sector’s competitiveness and resilience”*.

Despite the EBA’s high level principle that *“the revised prudential treatment of software shall not lead to undue benefits/undue relief of CET1 capital”*, we struggle to think of situations where the CET1 increase from a non-deduction or partial non-deduction would be *“undue”*. There should be no limit on the benefits to banks, so long as the revised regulatory technical standard is prudent. Why would anyone limit the benefits?

We would suggest that the final RTS does not seek to limit benefits or relief.

As a point of note, we computed our own estimate of the impact of deduction of software assets, based on the best available public data and a large sample size of EU banks. The result is somewhat different to the EBA’s estimate that *“the current regulatory treatment of software has a negative impact of approximately 34.6 bps on the CET1 ratio of the institutions in the sample”* – we estimate 49bp:

**The impact of the deduction of software on a sample of EU banks**

FY19, €bn	Software NBV	CET1	RWAs	CET1 Ratio
Current	A 46.0	B 1,136.7	C 8,038.6	D = B / C 14.14%
Non-Deduction		E = B + A 1,182.6	F = C + A 8,084.6	G = E / F 14.63%
Difference		+46.0	+46.0	+0.49%

**The carrying value in the accounts is – generally – already prudent**

Most of the time, a software build (just like a real estate build) can be capitalised in the accounts, because it is expected to generate probable future economic benefits beyond one accounting period. The capitalised expense is then amortised over its (conservatively assessed) useful economic life. If there are problems, it is impaired or written off.

If such expenses were to be expensed immediately, then the resulting financial statements would be misleading. If I build a headquarters building, say, for €100m this year and expect to use it for 20 years, it would be odd and misleading to represent all the €100m costs of build this year. Instead, putting a €100m asset on the balance sheet and taking a €5m amortisation charge through P&L each year seems more logical. In effect, capitalisation and amortisation give a better view of reality.

Based on our experience, we believe that accountants – generally – are doing their job properly and the economic life of software is indeed conservatively assessed and amortisation schedules are conservative. Therefore, we agree with the assertion that *“the value of some software assets is deemed to present a high level of volatility and/or rapid obsolescence, due to the changes in technology”* but argue that this is already reflected in accounting net carrying values.

<sup>2</sup> Source: BNP Paribas Bank Advisory team estimates based on historic values for a sample of banks



We view the 37% net:gross ratio for software carrying value as evidence of this conservatism, moreover since many “live” systems are still operating and have not been written off despite being fully amortised (in the accounting sense, ie. zero net book value).

**Capitalised Software Amounts for a sample of EU banks (FY 2019)**

Total RWAs for the sample	€6,643.2bn
Gross Book Value	€106.8bn
Net Book Value	€39.7bn
Ratio of Net:Gross	37%

We also believe that accountants – generally – are doing their job properly by impairing software investments that no longer serve the same economic function, for example if they have become obsolete. This is the case for all assets, not just software, and we do not see problems in its application. Our survey of empirical data from European banks over the last decade indicates that accounting impairments are rare but in an extreme case can be up to 30% of the total net book value.

Therefore, based on these observations, we would argue that the carrying accounting net book value is generally prudent and does not systematically overstate the value of capitalised software.

**Operating assets should not be systematically valued at fire-sale or run-off values in the prudential balance sheet**

In a “jump-to-resolution” situation, balance sheet values change and, generally, equity levels plummet as a result. One of the roles of regulatory capital is that, upon entering resolution, taxpayers are protected by an adequate cushion and additional “MREL” resources are able to recapitalise the bank to continue operating, if that is the resolution approach. A number of recent, high profile resolution situations show how this works in practice.

We do not dispute the EBA’s observations in this area: *“it cannot be disregarded that under a merger/acquisition, resolution or liquidation case, it appears that sooner or later software assets of the bank will lose their value. While this might not be at day one in particular for mergers/acquisitions or resolution cases (which is consistent with a full upfront deduction), this will come after some time (the related question being after which amount of time)”*. Much of the EBA consultation paper is spent justifying a 2-year time horizon, being the midpoint of some recent resolutions, where the software has been of value for 1-3 years.

But we do dispute the approach here. The issue is that accounting and prudential balance sheets of a going concern bank assume that the bank in question is “going concern”. Of course, some trading assets are marked-to-market and some financial entries are deducted (see below) but loans are held at amortised cost with an accompanying IFRS 9 expected credit loss provision and operating assets such as Property, Plant and Equipment are held at amortised cost, as set out above. For example, a specialised operations centre that cost €100m to build and had an expected operational life of 20 years would be depreciated over that timescale and carried at the net book value in both the accounting and prudential balance sheet, despite the fact that its disposal value in resolution is likely to be far lower or even zero.

We would argue that applying a “gone concern” valuation approach to a “going concern” bank is misguided and duplicates the role of regulatory capital.



### **Basel III (2009) applied a “gone concern” valuation approach for intangibles**

Basel I and Basel II required the deduction of goodwill but were silent on the treatment of intangible assets<sup>3 4</sup>.

Intangibles became a focus with the publication of the consultative document on changes to Basel (which became known as Basel III) in late 2009<sup>5</sup>. Basel noted that the financial crisis had undermined the market’s view of regulatory capital, which was often bloated by dubious asset values:

*“Many market participants therefore lost confidence in the Tier 1 measure of capital adequacy. They instead focused on measures such as tangible common equity (which nets out elements like goodwill from common equity, as these are not realisable in insolvency).”<sup>6</sup>*

Basel III ensured that goodwill, other intangible assets and deferred tax assets that rely upon the future profitability of the bank were to be deducted from CET1. This is ostensibly due to their unreliable value in a “gone concern” situation:

*“The proposal addresses the concern that undue reliance on these assets is not appropriate for prudential purposes, as they may provide no protection to depositors or governmental deposit insurance funds in insolvency and can be suddenly written off in a period of stress”<sup>7</sup>*

However, Basel’s focus was on goodwill and DTAs. Despite the push for an internationally harmonised approach, software was not explicitly mentioned. Perhaps this is because software was a minor item back then (in our estimation probably one-third of the level it is today, relative to RWAs) and not the main cause of concern in improving the solidity of regulatory capital definitions. Note that the same concern over valuation was not applied to other assets – operating real estate comes to mind – that also have uncertain value in a “gone concern” situation. Basel III’s focus on stressed valuations was limited to two large financial assets, the one a balancing item between acquisition price and book value, the other the ability to pay less tax on potential future profit streams.

So the regulatory context of Basel III that led to the CRR in the EU can be summarised as follows: intangible assets are deducted from CET1. The question that needs to be asked is: is software an intangible asset, akin to DTAs and goodwill, to which we should apply the same treatment?

### **Intangible assets are not all the same: software is the plant of the 21<sup>st</sup> century!**

The notion of an intangible asset is somewhat outdated and is based upon an industrial economy from before the IT developments of the last thirty years. The fact that something has no physical mass should make little difference to its treatment as a financial item in the accounts. There are sound intellectual arguments why an investment in software is akin to other operating assets that are generally reported under Property, Plant and Equipment. Software is the result of investment and is designed to be used for several accounting periods, so capitalisation and amortisation makes sense. Software is twenty-first century plant!

The intangible assets that were purposefully deducted under Basel III are not operating assets required to run the platform and generate revenues. They are different in nature to capitalised software. They are financial items that, to have a value, require future revenue. This is a crucial distinction.

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<sup>3</sup> “International Convergence of Capital Measurement and Capital Standards”, Basel Committee, July 1988

<sup>4</sup> “International Convergence of Capital Measurement and Capital Standards: A Revised Framework, Comprehensive Version”, Basel Committee, June 2006

<sup>5</sup> “Consultative Document: Strengthening the resilience of the banking sector”, Basel Committee, December 2009

<sup>6</sup> Ibid.

<sup>7</sup> Ibid.



We do not dispute that under IFRS “software is explicitly mentioned as an example of intangible asset” and that “software that is an integral part of the related hardware is classified as tangible asset and treated under IAS 16 “Property, Plant and Equipment”.” But it is wrong to go to the next step and claim that, since US GAAP is not explicit in its classification of software as a tangible or intangible asset, this is a “difference with IFRS”. We would argue that IFRS is also not explicit on this matter. Indeed, there is sufficient ambiguity in IFRS for several IFRS-reporters, albeit a small minority, to report capitalised software separately from intangible assets and consequently not deduct software from regulatory capital.

*Example 1: Singaporean bank OCBC*

OCBC reports “computer-related” Property, Plant & Equipment in its IFRS accounts with a net book value of S\$688m as at FY 2019, which includes capitalised software and is not deducted from regulatory capital. Within intangible assets, other than Goodwill (S\$4,468m), OCBC’s main items are core deposit relationships, customer relationships, distribution platform and life insurance business, totalling S\$512m in net book value.

**37. Goodwill and Intangible Assets**

	GROUP		BANK	
	2019 \$'000	2018 \$'000	2019 \$'000	2018 \$'000
<b>Goodwill</b>				
At 1 January	4,478,591	4,450,790	1,867,176	1,867,176
Acquisition (Note 34.3)	2,309	–	–	–
Currency translation	(12,824)	27,801	–	–
At 31 December	4,468,076	4,478,591	1,867,176	1,867,176
<b>Intangible assets</b>				
At 1 January	613,947	709,050		
Acquisition	3,453	–		
Amortisation charged to income statements:				
– Core deposit relationships <sup>(1)</sup>	(41,203)	(40,757)		
– Customer relationships <sup>(2)</sup>	(14,936)	(14,783)		
– Distribution platform	(44)	–		
– Life insurance business <sup>(3)</sup>	(46,636)	(46,636)		
Currency translation	(2,758)	7,073		
At 31 December	511,823	613,947		
<b>Total goodwill and intangible assets</b>	<b>4,979,899</b>	<b>5,092,538</b>	<b>1,867,176</b>	<b>1,867,176</b>
<b>Analysed as follows:</b>				
Goodwill from acquisition of subsidiaries/business	4,468,076	4,478,591	1,867,176	1,867,176
Intangible assets, at cost	1,569,658	1,572,055	–	–
Accumulated amortisation for intangible assets	(1,057,835)	(958,108)	–	–
	4,979,899	5,092,538	1,867,176	1,867,176

<sup>(1)</sup> Core deposit relationships, arising from the acquisition of OCBC Wing Hang, are determined to have an estimated useful life of 10 years. At 31 December 2019, these have a remaining useful life of 4.5 years (2018: 5.5 years).

<sup>(2)</sup> Customer relationships, arising from the acquisition of Bank of Singapore Limited and Barclays WIM, are determined to have an estimated useful life of 10 years. At 31 December 2019, these have a remaining useful life of up to 7 years (2018: 8 years).

<sup>(3)</sup> The value of in-force insurance business of the Group is amortised over a useful life of 20 years. At 31 December 2019, the intangible asset has a remaining useful life of 5 years (2018: 6 years).

**Example 2: Swiss bank UBS**

UBS has a separate line item in its IFRS accounts called “Property, equipment and software” and a separate line item for “Goodwill and intangible assets”. Consequently, none of the capitalised software is deducted from regulatory capital.

Balance sheet			
USD million	Note	31.12.19	31.12.18
<b>Assets</b>			
Cash and balances at central banks		107,068	108,370
Loans and advances to banks	10	12,447	16,868
Receivables from securities financing transactions	10, 25	84,245	95,349
Cash collateral receivables on derivative instruments	10, 25	23,289	23,602
Loans and advances to customers	10	326,786	320,352
Other financial assets measured at amortized cost	10, 17a	22,980	22,563
<b>Total financial assets measured at amortized cost</b>		<b>576,815</b>	<b>587,104</b>
Financial assets at fair value held for trading	12, 24	127,514	104,370
<i>of which: assets pledged as collateral that may be sold or repledged by counterparties</i>		<i>41,285</i>	<i>32,121</i>
Derivative financial instruments	11, 24, 25	121,841	126,210
Brokerage receivables	24	18,007	16,840
Financial assets at fair value not held for trading	13, 24	83,944	82,690
<b>Total financial assets measured at fair value through profit or loss</b>		<b>351,307</b>	<b>330,110</b>
Financial assets measured at fair value through other comprehensive income	14, 24	6,345	6,667
Investments in associates	31b	1,051	1,099
Property, equipment and software	15	12,804	9,348
Goodwill and intangible assets	16	6,469	6,647
Deferred tax assets	8	9,537	10,105
Other non-financial assets	17b	7,856	7,410
<b>Total assets</b>		<b>972,183</b>	<b>958,489</b>

Note 15 Property, equipment and software										
At historical cost less accumulated depreciation										
USD million	Owned properties	Leased properties <sup>5</sup>	Leasehold improvements	IT hardware and communication equipment	Internally generated software	Purchased software	Other machines and equipment	Projects in progress	2019	2018
<b>Historical cost</b>										
Balance at the end of the previous year	7,679		3,122	1,568	5,173	469	799	1,157	19,966	19,522
Adjustment from adoption of IFRS 16	(20)	3,407		(32)			0		3,354	
Balance at the beginning of the year	7,659	3,407	3,122	1,535	5,173	469	799	1,157	23,321	19,522
Additions	15	345	21	178	73	30	23	1,246	1,931	1,702
Disposals / write-offs <sup>1</sup>	(15)	(22)	(314)	(170)	(28)	(20)	(68)	0	(636)	(849)
Reclassifications	(130)	0	164	0	943	2	41	(1,418)	(398) <sup>4</sup>	(195)
Foreign currency translation	122	14	10	16	15	4	4	28	213	(213)
Balance at the end of the year	7,650	3,745	3,004	1,559	6,176	485	799	1,014	24,431	19,966
<b>Accumulated depreciation</b>										
Balance at the end of the previous year	4,500		1,873	1,077	2,291	316	561		10,619	10,465
Adjustment from adoption of IFRS 16	(1)	29		(28)			0			
Balance at the beginning of the year	4,499	29	1,873	1,049	2,291	316	561	0	10,619	10,465
Depreciation	161	487	194	165	603	56	62	0	1,728	1,153
Impairment <sup>2</sup>	1	2	1	0	30	3	0	0	37	75
Disposals / write-offs <sup>1</sup>	(15)	(2)	(312)	(169)	(28)	(20)	(68)	0	(614)	(840)
Reclassifications	(256)	0	2	0	0	0	0	0	(254) <sup>4</sup>	(124)
Foreign currency translation	75	4	9	9	9	3	3	0	112	(111)
Balance at the end of the year	4,466	519	1,768	1,053	2,906	358	559	0	11,628	10,619
<b>Net book value</b>										
Net book value at the end of the previous year	3,179	0	1,249	491	2,882	153	238	1,157	9,348	9,057
Net book value at the beginning of the year	3,160	3,378	1,249	486	2,882	153	238	1,157	12,702	9,057
Net book value at the end of the year	3,184	3,226	1,236	506	3,270	126	241	1,014 <sup>3</sup>	12,804	9,348

<sup>1</sup> Includes write-offs of fully depreciated assets. <sup>2</sup> Impairment charges recorded in 2019 generally relate to assets that are no longer used for which the recoverable amount based on a fair value approach was determined to be zero. <sup>3</sup> Consists of USD 787 million related to internally generated software, USD 126 million related to Owned properties and USD 100 million related to Leasehold improvements. <sup>4</sup> Reflects reclassifications to Properties held for sale. <sup>5</sup> Represents right-of-use assets recognized by UBS as lessee. Includes immaterial leased IT equipment. The total cash outflow for leases during the year was USD 641 million. Interest expense on lease liabilities is included within interest expense from financial instruments measured at amortized cost and Lease liabilities are included within Other financial liabilities measured at amortized cost. Refer to Notes 3 and 22a, respectively. Also refer to Note 1 for more information about the nature of UBS's leasing activities.

Of course, the national application of IFRS may allow for certain differences. Perhaps Switzerland and Singapore have explicitly elected to present software as part of PP&E. Meanwhile in the EU, guidance and conventions appear to direct accountants to present software within the subset of intangible assets.

Our strong hypothesis is that IFRS allows – or at least does not prohibit – software to be presented as per the OCBC and UBS examples cited above. It appears that the presentation of software as an



intangible is a convention that has arisen in a subset of IFRS reporting jurisdictions, such as the EU, Canada and Australia. Changing that presentation convention might help matters!

**Recommendation: Clarify whether EU IFRS is rigid and software explicitly has to be reported as a subset of intangible assets or whether the same approach taken in Singapore and Switzerland might be adopted in the EU**

**One shouldn't think that assets should somehow be loss-absorbing: that's for capital instruments**

We find the following argument for deduction of software from CET1 to be misleading: *"According to Article 26 (1), second subparagraph of the CRR, items shall be recognised as CET1 only where they are available to the institution for unrestricted and immediate use to cover risks or absorb losses as soon as they occur"*. This CRR component applies to liabilities only. Indeed, we wonder how it could possibly apply to assets. Is the implication that only fully liquid assets can have a carrying value in the prudential balance sheet? Surely not.

The Basel regulations are clearer on the need for loss absorption among capital instruments. *"It is critical that for non-common equity elements to be included in Tier 1 capital, they must also absorb losses while the bank remains a going concern. Qualifying instruments must contribute in a meaningful way to ensuring the going concern status of the bank and they must be capable of absorbing losses in practice without exacerbating a bank's condition in a crisis. Certain innovative features which over time have been introduced to Tier 1 to lower its cost, have done so at the expense of its quality. These elements will need to be phased out"*<sup>8</sup>.

We would suggest that the final RTS on treatment of software does not refer to loss absorption.

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<sup>8</sup> "Consultative Document: Strengthening the resilience of the banking sector", Basel Committee, December 2009



**A proper “Level Playing Field” is imperative, with global non-deduction of software. A Basel clarification would help**

At present, the regulatory treatment of capitalised software differs significantly. There are several large banking markets where it is not deducted (notably the US (GAAP reporters) but also Singapore (IFRS reporters) and Switzerland (among the larger banks, CS reports under GAAP and UBS reports under IFRS)). This creates a significant and growing “level playing field” issue when comparing the solvency impact of technology investments with banks in the EU and other jurisdictions, which deduct software from regulatory capital because they view it as an intangible asset.

For the sake of clarity, we must state the obvious: there is no rationale for a different treatment of capitalised software in the US, Singapore or Switzerland versus the EU. We hope that full, fair and clear global harmonisation of treatment can be achieved.

As we have argued above, we do not in general support the notion of deduction of software from regulatory capital resources, and so suggest that the level playing field is achieved by harmonising around non-deduction rather than a full or partial deduction regime. We hope for recognition of the “operating asset” qualities of software even though it has no physical mass, and conservative capitalisation of software in the prudential balance sheet.

**Recommendation: The Basel committee should explicitly state that software, as an operating asset, is not considered an item for deduction, whatever its accounting representation.**

**To meet the legislative requirements of the amended CRR, the EBA is right to consider a cap on the assumed economic life of software in the prudential balance sheet: we suggest five years rather than the two years in the proposal**

We can see that the EBA mandate presents some constraints and challenges. Namely:

- For whatever reason, EU banks report software in their accounts as an intangible asset and it is not in the EBA’s remit to change this rule or convention
- Basel is quite clear that intangible assets need to be deducted from CET1
- However, the amended CRR excludes software from this deduction, subject to certain provisos
- The EU legislators have been quite clear that the “gone concern” value of software needs to be taken into account, even though they also want the regulatory capital regime not to stifle technological investment – a tough combination of objectives!

The EBA has proposed taking a balanced approach:

*“The EBA aimed at achieving an appropriate balance between the need to maintain a certain margin of conservatism/prudence in the treatment of software for prudential purposes, especially given its limited value in a gone concern scenario, and the acknowledgment of the relevance of software assets from a business and an economic perspective, in a context of increasing digital environment.”*

*“In order to develop a prudential framework for the treatment of software assets, it is paramount to find an appropriate balance between the likely limited value that those assets are expected to have in case of resolution, insolvency or liquidation of an institution and their value from a business and an economic perspective, for those institutions using them as part of their activities”*

This is pragmatic and encouraging. The proposed RTS interprets the legislative intent (“it is the EBA view that this was not the intention of the co-legislators and that a less strict interpretation should be retained, as long as the resulting technical standard contains a satisfactory level of prudence”). Longer term, it would be more coherent to modify paragraph 69 (c) of the CRR thus:





*“(69c) Due to the evolution of the banking sector in an even more digital environment software is becoming a more important asset type. Prudently valued software assets whose value is not materially affected by the resolution, insolvency or liquidation of an institution should not be subject to the deduction of intangible assets from Common Equity Tier 1 items. This specification is important as software is a broad concept that covers many different types of assets not all of which preserve their value in a gone concern situation. In this context, differences in the valuation and amortisation of software assets as well as realised sales of such assets should be taken into account. Furthermore, consideration should be given to international developments and differences in the regulatory treatment of investments in software, different prudential rules that apply to institutions and insurance undertakings as well as the diversity of the financial sector in the Union including non-regulated entities such as financial technology companies.”*

Even in advance of CRR modifications, however, a “halfway house” that takes all prudent considerations into account is possible and the EBA’s proposals represent a good framework.

We are supportive of the EBA’s proposed treatment, a cap on the amortisation timeframe, which can make sense from a prudential perspective: there may be isolated and egregious instances where the actual lifetime of software is less than the accounting amortisation period, though we have not seen many instances of this in practice. The approach offers a substantial boost to banks and supports their technology strategies.

But it must be calibrated more realistically. We think the current proposal could mean that typical software will be fully amortised in the prudential balance sheet about a year after entry into service, which is too rapid. It also does not level the playing field enough.

So, what calibration would we propose?

**Recommendation: We would propose that software is amortised in the prudential balance sheet over a maximum of five years, rather than the two year period proposed in the consultation**

Bank software appears to have an economic life of around nine years and an average accounting amortisation period of six. Whilst the economic life in resolution could be much shorter, this is a remote consideration for “going concern” banks and should be taken into account when choosing a degree of conservatism, but should not itself define the conservative amortisation period. A cap on amortisation periods at five years would be conservative, accelerating the amortisation in the prudential balance sheet of software with longer economic lives that might, therefore, have an increased risk of obsolescence while still not fully amortised. As well as being prudent, this might help to encourage modernisation, though it does risk encouraging short-termism.

Situation	Lifetime (yrs)	Source
Immediate liquidation	0	Reported in Consultation Paper
Resolution through run-off or M&A	1-3	Reported in Consultation Paper
Midpoint	2	
<b>Realistic proposal</b>	<b>5</b>	<b>BNP Paribas Bank Advisory</b>
Typical accounting amortisation	6	Reported in Consultation Paper
Typical actual utility	9	Estimate of BNP Paribas Bank Advisory team, based on various indicators including the ratio of amortisation charge to gross value on a sample of banks

As for the way of representing work-in-progress software, we propose that this should not be a regulatory capital deduction and is treated in line with the accounting treatment, just like work-in-progress real estate development. An increased risk weight (or a carrying value “haircut” approach, if



RWAs are seen as unsuitable for software) could be considered for work-in-progress software, to recognise software development risk.

Our hope is that this CRR amendment and the final RTS from the EBA will be complemented by the necessary clarifications to legislation and Basel standards, over time.

*Responses to questions for consultation*

1:	In case some software assets are classified within tangible assets in your institution, what are the main reasons for doing so and what is the percentage of this classification compared with the classification as intangible?	N/A
2:	Do you have any comment on the proposed approach for the prudential treatment of software assets?	Yes, please see above.
3:	What is your view on the calibration of the prudential amortisation period?	As a pragmatic, workable compromise, 5-years would be much better than 2-years
4:	What is your view on the proposed alternative approaches illustrated above?	Of the alternatives presented, prudential amortisation makes the most sense. It would have been nice at least to have appraised the option of full non-deduction
5:	If considered needed, please provide any complementary information regarding the costs and benefits from the application of these draft RTS.	N/A
6:	If considered material, please provide your own estimate on the difference in the impact of prudential amortisation treatment between (i) assuming the capitalisation date of software assets as the starting point for prudential amortisation (ie. Option A illustrated in this CP) and (ii) assuming the date of accounting amortisation as the starting point for prudential amortisation, but fully deducting from CET1 items the costs capitalised until this date is (i.e. Option B illustrated in this CP) .	We cannot share data on this topic, nor do we express any "preference". Our preferred option would be for software WIP to be fully capitalised and not deducted, with amortisation to commence upon delivery and extend for the full economic life of the operating software asset. However, we do not believe the EBA is considering this option at present.
7:	Please provide any additional comments on the Consultation Paper.	Please see all comments above.

**Conclusion and Next Steps**

With the greatest respect for the EBA, we place our team resources at your disposal for elaboration, clarification and discussion. Please do let us know of any way in which we can help further. We must again stress that these are the team's views not those of BNP Paribas SA and also apologise again if our principled input goes too far beyond the narrow corridor of reality. Our conscientiousness is hopefully appreciated.

With very best wishes

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