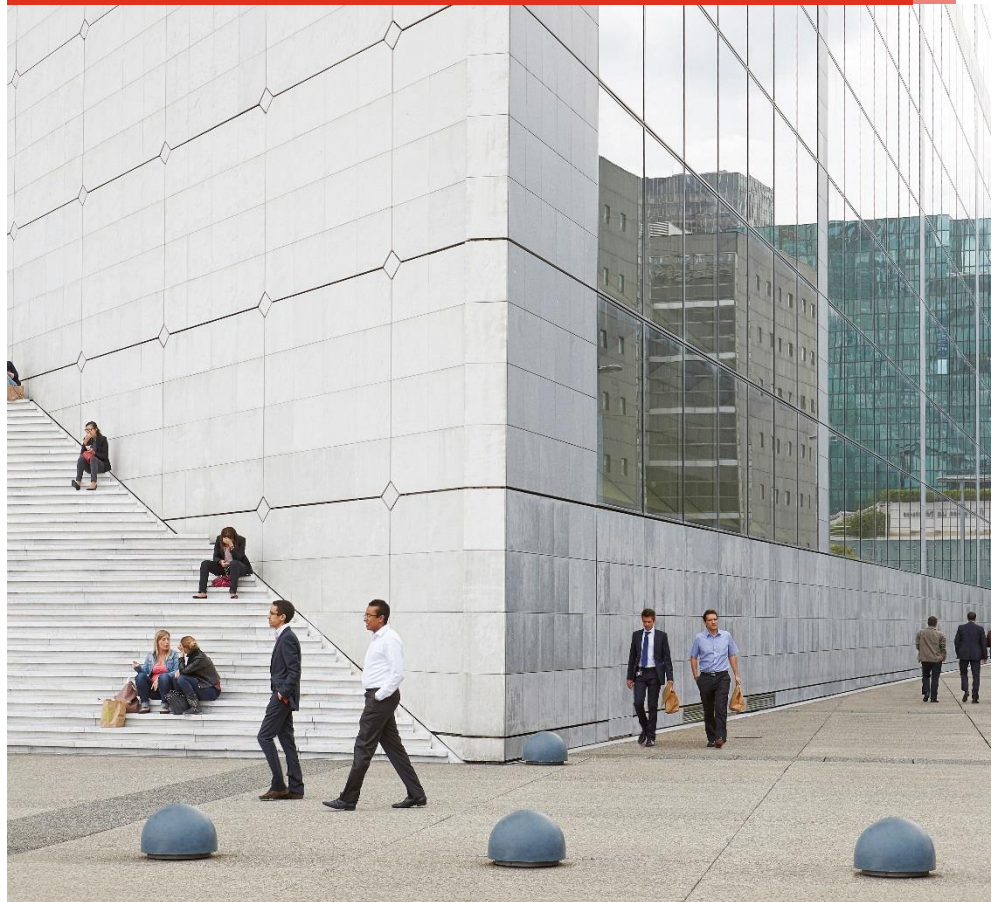


In Search of Lost Time

A time-to-report analysis in the Banking & Capital Markets industry

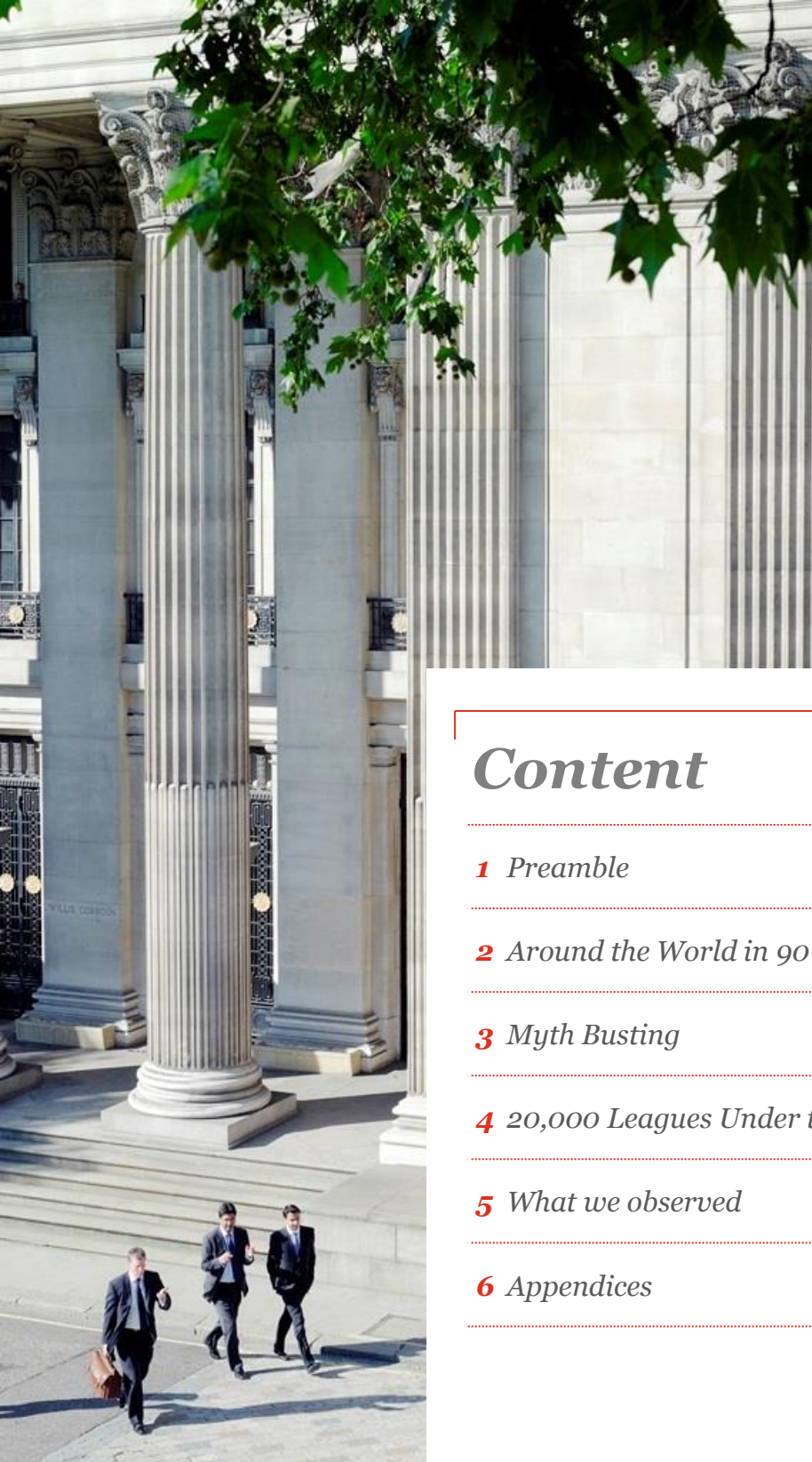
October 2016



pwc

« Time is a kind of river, an irresistible flood sweeping up men and events and carrying them headlong, one after the other, to the great sea of being. »

MARCUS AURELIUS, *Meditations*



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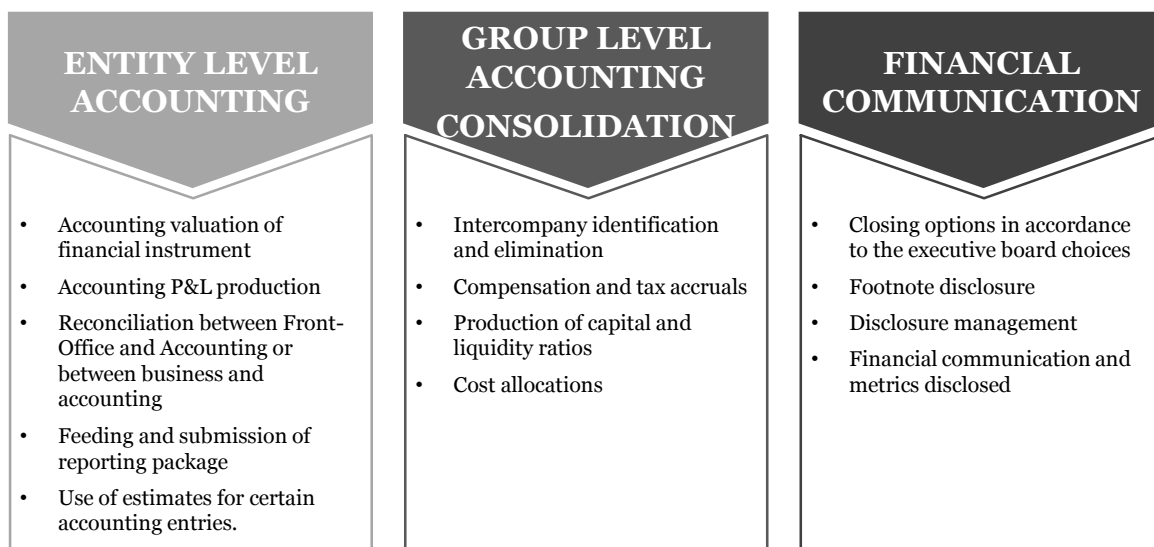
A recurring 3 fold topic in the Banking industry

The “time-to-close” or “time-to-report” comes in and out of the CFO agenda, but always remains a concern, not least because external and internal factors push Finance departments to deliver a more extensive set of data, at a higher frequency, almost in real time.

The pressure on Finance departments has never been as great. From an external point of view, regulators, investors and analysts expect certified financial figures within puzzling time constraints. But times have changed and Finance departments had to adapt with budget constraints never seen before.

From an internal point of view, boards of Directors must be able to make decision in a timely manner with a multitude of important financial constraints (on liquidity and capital for instance). Hence the necessity for Finance to respond faster to all those requests.

Fast close has been the most common answer to tackle these issues. In this paper, we want to present a comprehensive view of the closing process in the banking industry, starting from the front-to-back chain to financial communication. We will show the geographical differences in terms of time-to-report and content of publication. We will then tackle some longstanding myths which tend to keep Finance departments from transformation. Furthermore we will analyse the best practices and the latest initiatives that are aimed at gaining precious days on the closing timelines.



The 3 key processes of the time-to-report value chain



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Around the World in 90 Days

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Around the World in 90 Days

A global comparison of time-to-report

Exactly 90 days elapse between the first and the last annual publication within the banking industry. Is it all about process efficiency or is there another rationale behind this significant gap?

The analysis highlights three groups of banks: US banks (simplified publication based on estimated numbers), the European banks (publication of full accounts) and UK

banks (publication along their Annual Report).

With the exception of Société Générale, all European banks have gained at least one day per year over the last four years. BPCE and BNP Paribas undertook significant closing reduction projects, with gains between one week and 10 days.

	<i>Calendar days</i>	Public announcement deadlines				Gaps FY12 - FY15
		FY 2012	FY 2013	FY 2014	FY 2015	
US Banks	JP Morgan Chase	16	14	14	14	-2
	Morgan Stanley	18	17	20	15	-3
	Citigroup	17	16	15	15	-2
	Wells Fargo	11	14	14	15	4
	Bank of America	17	15	15	19	2
	Bank of New York Mellon	16	17	23	20	4
European Banks	Banco Santander	31	30	34	27	-4
	Deutsche Bank	31	19	29	28	-3
	UBS	36	35	41	33	-3
	Crédit Suisse	38	37	43	35	-3
	BNP Paribas	45	44	36	36	-9
	BPCE	48	50	50	41	-7
	Société Générale	44	43	43	42	-2
	Commerzbank	46	44	43	43	-3
	Crédit Agricole	51	50	49	48	-3
UK Banks	HSBC	63	55	54	53	-10
	RBS	59	58	57	57	-2
	Barclays	43	42	62	61	18



- Simplified publication based on unaudited results and estimated numbers. For instance, with regards to allowances for credit losses, fair value of financial instruments, goodwill impairment, litigation, taxes.
- The P&L published is simplified and does not include a breakdown by country.
- The balance sheet is mostly not disclosed. However, the main regulatory ratios are disclosed as well as the return on equity.
- The report is around 20 pages and does not include communication messages.

- Full publication of accounts is officially unaudited. However our interviews revealed that the most of the European banks ask their auditor to provide an opinion about this disclosure
- Full P&L is disclosed with a breakdown by business lines and by country.
- The main elements of the balance sheet are displayed with more or less detail between institutions.
- A large majority of European banks disclose prospective elements.
- The reports are between 50 and 100 pages.

- The public announcement is disclosed along the Annual Report.

A closer view of the quarterly public announcements

Different practices arise when we drill down to the quarterly vision. Whilst certain banks maintain the same closing deadlines (Santander, Deutsche Bank), others prefer to publish much earlier (Crédit Suisse, BNP Paribas).

Amongst the UK Banks it is worth noting that HSBC is leading for the annual publication but lagging for quarterly ones, whilst Barclays is the opposite.

<i>Calendar days</i>	FY13				FY14			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
JP Morgan Chase	12	12	11	14	11	15	14	14
Morgan Stanley	18	18	18	17	17	17	17	20
Citigroup	15	15	15	16	14	14	14	15
Wells Fargo	12	12	11	14	11	11	14	14
Bank of America	17	17	16	15	16	16	15	15
Bank of New York Mellon	17	17	16	17	22	18	17	23

Banco Santander	25	30	24	30	29	31	35	34
Deutsche Bank	29	30	29	19	29	29	29	29
UBS	30	30	29	35	36	29	28	41
Credit Suisse	24	25	24	37	16	22	23	43
BNP Paribas	33	31	31	44	30	31	31	36
BPCE	36	37	37	50	36	31	35	50
Société Générale	37	32	38	43	37	32	37	43
Commerzbank	37	39	38	44	37	38	37	43
Crédit Agricole	37	37	38	50	37	36	37	49

HSBC	37	36	35	55	37	35	34	54
RBS	33	33	32	58	32	25	31	57
Barclays	24	30	30	42	36	30	30	62



FY15			
Q1	Q2	Q3	Q4
14	14	13	14
20	20	19	15
16	16	15	15
14	14	14	15
15	15	14	19
22	21	20	20

28	30	29	27
26	30	29	28
35	27	34	33
21	23	21	35
30	31	30	36
36	30	35	41
36	36	36	42
37	34	33	43
36	35	36	48

35	34	33	53
30	30	30	57
29	29	29	61



The UK banks, while announcing their *annual* results long after the rest of the world, compete with the European best in class when it comes to *quarterly* public announcement.



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Myth busting

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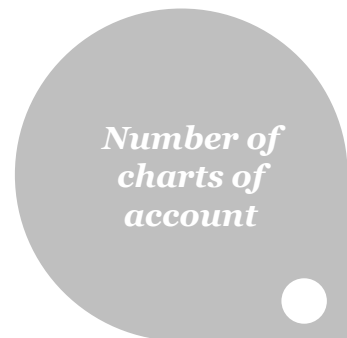
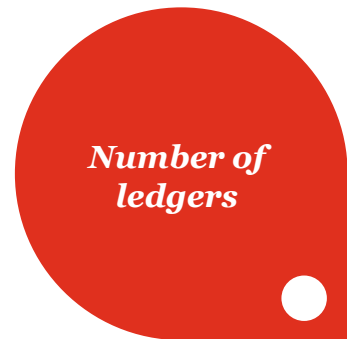
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Myth Busting

On drivers of reporting speed

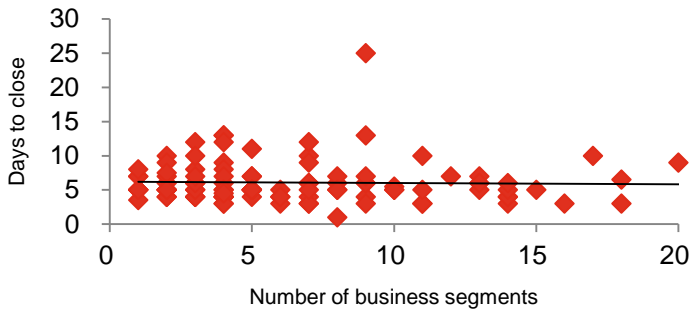
Following the previous results, and before conducting a detailed analysis within the banking industry, we have tested a number of common hypotheses against our database of over 350 US and UK companies. We have found some surprising results, which are outlined in the rest of this document.

In reading this section, it is important to note that the findings demonstrate correlations but not causality. We have however provided our view of the potential causes of the correlations through the paper.



Better and faster reporting

Days to close the books against number of business segments

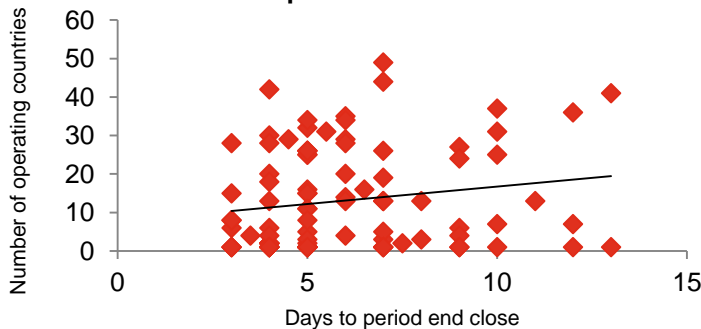


Hypothesis: A greater number of business segments increases the close cycle.

Finding: Not confirmed. No significant correlation.

The number of business segments does not have a major impact on the month end close cycle. It was expected that an increased organisational complexity would require greater effort to close the books. The fact that there is no significant correlation may reflect the benefits of automated consolidation and segmental reporting.

Number of operating countries vs. days to period end close

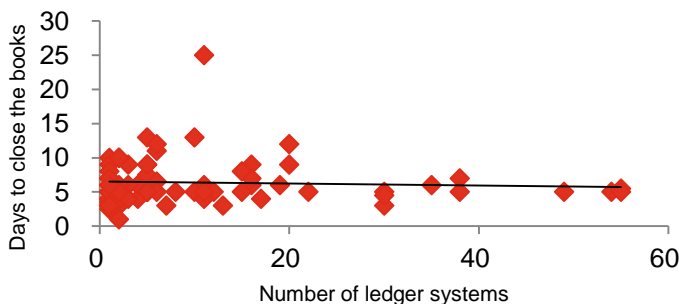


Hypothesis: A greater number of operating countries increases the close cycle.

Finding: Confirmed. Positive correlation.

The number of operating countries does appear to impact the month end close cycle. This is likely to be due to increased complexity in relation to consolidation (e.g. due to different data sources and intercompany complexity) as well as a longer time frame for collation of data from the various countries.

Days to close the books against the number of ledger systems deployed



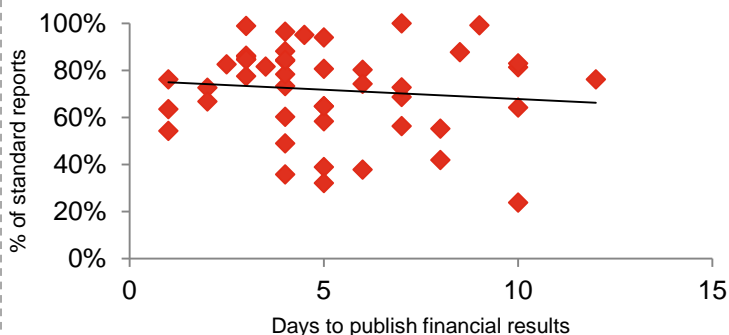
Hypothesis: A greater number of ledgers deployed by an organisation will result in an increased close cycle.

Finding: Not confirmed. No correlation.

It would be expected that an increased number of ledgers or instances of ledgers would result in a greater reconciliation and mapping effort and therefore would significantly impact the month end close cycle. However, the number of ledger systems used does not appear to have any significant impact on the month end close cycle, which may reflect greater automation of system feeds or standardisation of reports produced and/or larger Finance teams. It may also be the case that a greater number of ledgers means increased flexibility at a local level.



% of standard reports vs. days to publish results

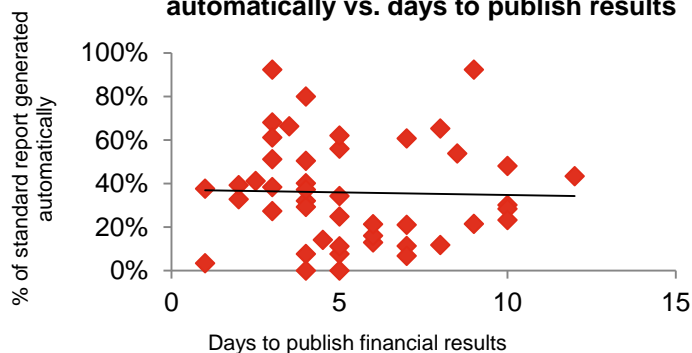


Hypothesis: The use of a lower percentage of standard reports results in a longer time to publish results

Finding: Not confirmed. Weak positive correlation.

The use of standard reports does not appear to have a huge impact on the month end reporting cycle. This may reflect a lack of trust in the standard reports or significant effort to interpret and analyse the information produced. It may also be that standard reports are more often used in more complex organisations, which would otherwise have had significantly longer reporting timeframes.

% of standard reports generated automatically vs. days to publish results

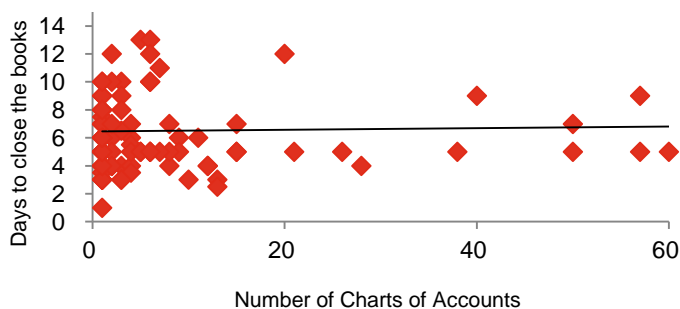


Hypothesis: The use of a lower percentage of standard reports produced automatically results in a longer time to publish results

Finding: Not confirmed. No correlation.

The use of automated standard reports alone does not appear to have a huge impact on the month end reporting cycle. This may reflect a lack of trust in the standard reports or significant effort to interpret and analyse the information produced. It may also be that standard reports are more often used in more complex organisations, which would otherwise have had significantly longer reporting timeframes. It may also be the case that a higher number of reports are produced because they are automated and therefore additional time is spent reading superfluous reports.

Days to close the books against the number of charts of accounts



Hypothesis: A greater number of charts of accounts (CoAs) used by an organisation will increase the close cycle.

Finding: Not confirmed. No correlation.

Where multiple CoAs are in place across an organisation, for instance as a legacy of multiple acquisitions, it would be expected that there would be significant effort required to reconcile individual CoAs to the reporting standard for the organisation. However, as well as not driving cost or headcount, the number of charts of accounts used does not appear any significant impact on the month end close cycle. This may be due to automated data mapping between ledger systems reducing the impact on general accounting and financial reporting workload. It may also be that some companies have developed very good manual or automated workarounds.



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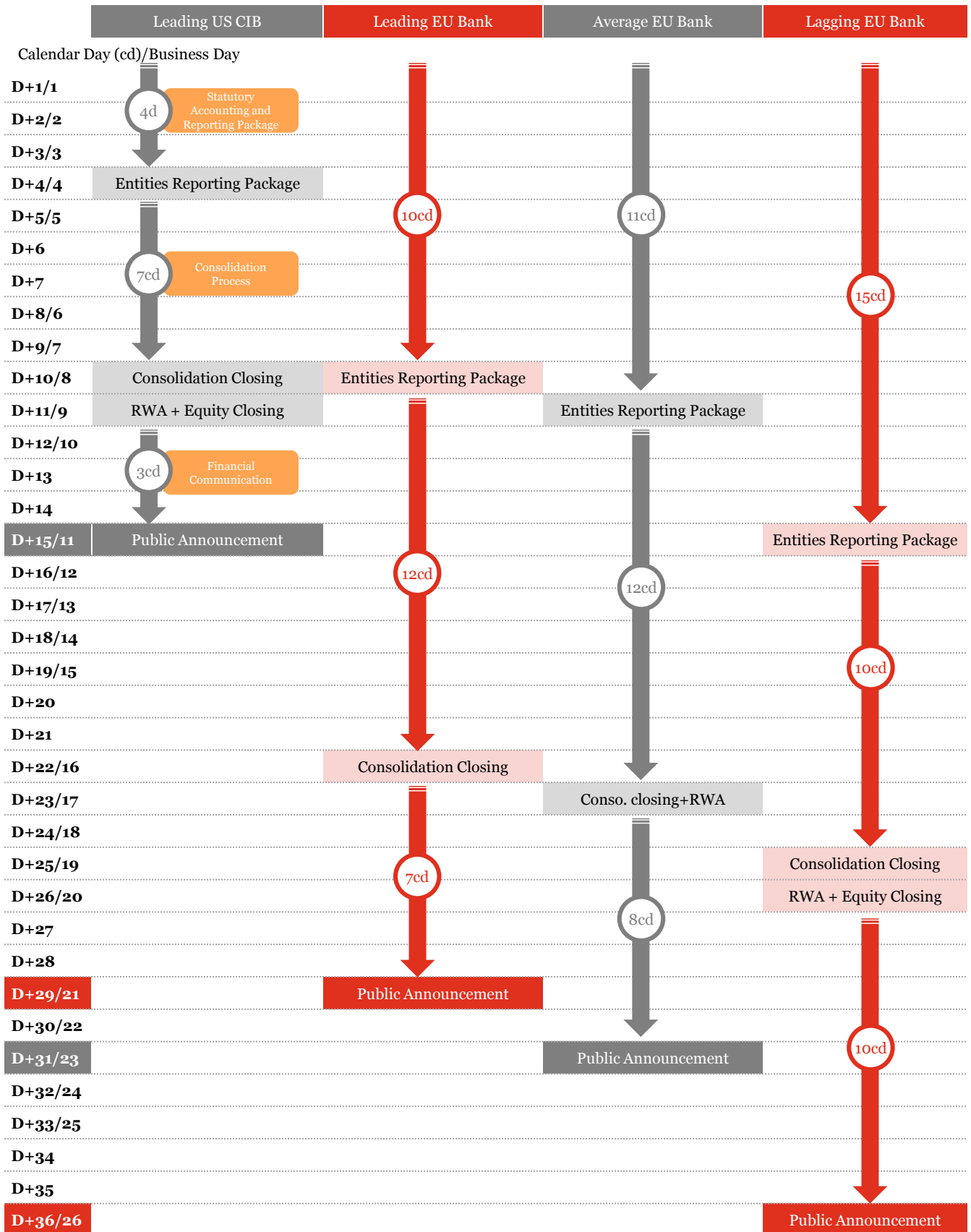
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20,000 Leagues Under the Sea

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20,000 Leagues Under the Sea

A deep dive in the closing process

Our analysis, based on face-to-face interviews and a comprehensive questionnaire, allowed us to gather interesting insights regarding the closing process. This information leads to the process breakdown on the right side.

from one bank to another, significant differences appear in the upstream phases (e.g.. intercompany reconciliations, reporting package submissions). The financial communication often also offers for improvement.

While it clearly appears that the consolidation process length is pretty similar

❑ Overview of the best practices for each process

Statutory Accounting and Reporting Package

Daily accounting P&L production

- Leading institutions are able to produce a daily accounting P&L for their CIB activities and for all their products. This allows for the correcting of discrepancies along the way, whereas other institutions struggle to clean their P&L at the end of the month.

Valuation systems

- Even if the product valuation process and valuation models between Front-Office and Accounting/Risk stands on both side of a Chinese wall, a large majority of banks rely on one valuation system to perform their work. This creates fewer discrepancies and thus reduces the reconciliation effort.

Use of estimates

- Estimates are used by several institutions, mainly with regards to fair valuation of financial instruments and impairment. These estimates are then adjusted later as required.

Consolidation process

Intercompany reconciliation

- A dedicated team to intercompany reconciliation appears to be a best practice for a process that is considered critical by more than 70% of the institutions interrogated. This team is in charge of reconciliation during the closing but also of various continuous improvement actions (incl. training) throughout the year.
- Automatic reconciliations occur at a contract level.

Financial Communication

- Continental Europe Banks can face inefficiencies regarding their quarterly or annual financial communication. Best practices are: anticipated closing options, early impairment decisions, automated production of the public announcement reports.



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What we observed

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What we observed

Our peer comparison

Through interviews and the questionnaire mentioned page 19, we collected information from a representative panel of international institutions within the banking industry.

These institutions are considered leading within their country / geographical zone and are spread between US, Continental Europe and UK.

Detailed questionnaire extract

2014	Number of days to close	B/O System stops feeding the accounting tool	Submission of reporting package to Group or Sub Group	Consolidated financial statement at Group level	Daily P&L
Bank A	BD+9	BD+2	BD+5	BD+8	Yes
Bank B	BD+9	BD+2	BD+5	BD+8	Yes
Bank C	BD+14	BD+2	BD+9	BD+14	No
Bank D	Q: BD+19 Y: BD+30	BD+3	BD+8	Q: BD+18 Y: BD+31	No
Bank E	Q: BD+20 Y: BD+22	BD+3	BD+11	BD+17	No
Bank F	BD+22		BD+10	BD+16	No
Bank G	BD+20	BD+5	BD+12	BD+18	No

2014	Critical Subprocesses	Estimated financial data	Closing KPI
Bank A	Interco elimination Valuation process Capital/liquidity Footnote disclosure	Allowance for credit losses Fair value of financial instruments Goodwill impairment Litigation Income taxes	Intercompany float (mismatches) below predetermined thresholds Late entries (which require adjustments to draft 8-k)
Bank B	Transfer pricing, Valuation processes, Compensation and tax accruals Production of capital ratios Cost allocations	Fair value of financial instruments	Manual entries Late entries
Bank C	<i>To be confirmed</i>	<i>To be confirmed</i>	<i>To be confirmed</i>
Bank D	Interco elimination Valuation process Capital/liquidity	Impairment Income taxes	Late entries Manual entries Quality of the package (respect of instruction)
Bank E	Interco elimination Valuation process Capital/liquidity	None	Process under management: Late entries Manual entries Quality of the package (respect of instruction) Cost
Bank F	Interco elimination Entity closing process		Intercompany float (mismatches) below predetermined thresholds
Bank G	Interco elimination Valuation process Capital/Liquidity	Credit impairment charges and provisions, property, plant and equipment, goodwill and intangible assets, provision for PPI redress, provision for interest rate hedging products redress, legal provisions, competition & regulatory matters, other provisions, financial assets/ liabilities designated at fair value, tax, pensions and post-retirement benefits, derivative financial instruments, available for sale investments, effective interest rate (EIR) and share based payments	Intercompany mismatches Late entries



2014	Systems in use		Recent or current projects with an impact on closing process	
Bank A	GL: SAP GL Conso: SAP BFC		Disclosure effectiveness/rationalization. Pre-certification and certification clearance meetings. Standardization of submissions. Use of disclosure management system.	
Bank B	GL: SAP GL Conso: HFM		SAP GL is under Implementation	
Bank C	GL: In-House Conso: SAP BFC		Consolidation optimisation	
Bank D	GL: CODA Conso: SAP BFC		Process streamlining Anticipation -> 9 calendar days gain expected	
Bank E	GL: PSGL Conso: SAP BFC		Upgrade of SAP BPC + look through consolidation levels Simplification of interco process Process management initiative	
Bank F	GL: Oracle EBS Conso: HFM		"Streamlining Year End" project - to define clear processes for the close, clear process owners, improve operating model and shave 10 days off YE reporting. "Ledger Transformation Programme" - Implement new ledger system and potentially implement new consolidation and reporting tools -> 10 calendar days gain expected	
Bank G	GL: SAP GL Conso: SAP BFC		Process improvement. Target to close end of February ->5 calendar days gain expected	



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Appendices

Time-to-Report 2014

Year End Reporting Rankings: 2014 Year Results for NYSE100 banks

Days to Public Announcement	Days to Audited Results	Company
14	55	J P Morgan Chase
14	56	Wells Fargo
15	56	Bank of America
15	56	Citigroup
16	58	PNC Financial Services Group
20	61	Morgan Stanley
21	58	US Bancorp
23	58	Bank of New York Mellon Corp.

Year End Reporting Rankings: 2014 Year Results for FTSE100 Banks

Days to Public Announcement	Days to Audited Results	Company
54	54	HSBC
56	56	Royal Bank of Scotland
57	57	Lloyds Banking Group
62	62	Barclays
63	63	Standard Chartered

Year End Reporting Rankings: 2014 Year Results for Eurotop100 Banks

Days to Public Announcement	Days to Audited Results	Company
29	65	Deutsche Bank
34	55	Banco Santander Central Hispano
35	35	BBVA
36	65	BNP Paribas
41	71	Intesa-Sanpaolo
42	89	Unicredito Italiano
43	63	Société Générale
54	54	HSBC
58	57	Lloyds Banking Group
62	61	Barclays
69	63	Standard Chartered

Year End Reporting Rankings: 2014 Year Results for Switzerland 50

Days to Public Announcement	Days to Audited Results	Company
33	30	Julius Baer
43	79	Credit Suisse
62	61	PSP
41	64	UBS

Our questionnaire

o. General presentation

#	Questions
KEY FIGURES	
0.1	Revenues in millions
0.2	Number of employees
0.3	Number of legal entities
0.4	Number of operating countries
0.5	Number of Business Lines
0.6	Number of FTEs in accounting department
0.7	Number of subledgers
0.8	Number of general ledgers
0.9	Number of charts of accounts

1. Closing Process practices at an entity level

WD : Working Day or Business Day

#	Questions
INVESTMENT BANKING ENTITIES	
CLOSING PROCESSES	
1.1	When do B/O systems stop feeding the accounting tool for the closing period concerned: WD+1, WD+2?
1.2	When is the entity/Business Line (BL) closing day? <i>ie. What is the last day of adjustments?</i>
1.3	What is the frequency of accounting PnL production for the CIB? <i>Daily / Monthly? On every product?</i>
1.4	Does the entity/BL have a lot of manual accounting entries regarding the volume of automated ones? What are the main cause of manual entries? <i>Correction of errors? Latest transactions? Product complexity? System deficiencies? Split of transactions across systems or locations?</i>
1.5	How complex is the PnL reconciliation process between economic / accounting PnL? How many days to reconcile?
1.6	For which type of item early cut off is used? On which type of data does the entity use estimates : - market parameter, - impairment, - Others...
IT	
1.7	Are the majority of B/O systems interfaced with sub ledgers or not?
OTHER ENTITIES	
1.8	When do B/O systems stop feeding the accounting tool for the closing period concerned: WD+1, WD+2?
1.9	When is the entity/Business Line (BL) closing day? <i>ie. What is the last day of adjustments?</i>
1.10	For which type of item early cut off is used? On which type of data does the entity use estimates : - impairment, - Others...

2. Accounting practices at Group level

#	Questions
CLOSING PROCESS MONITORING	
2.1	What are the key indicators used to monitor quality in terms of closing processes? (Examples: manual entries rate, intercompany mismatches, late entries...)
CLOSING PROCESS	
2.2	How many days to close at a Group level (currently D+14 for SG Group) excluding report production? <i>On a quarterly basis? On an annual basis?</i>
	What are the current closing delays for the following sub processes?
	- B/O system stops feeding the accounting tool
	- Submission of the reporting package to Group or sub Group
	- Consolidated financial statements at Group level
	- Financial results press conference
	- Publication of annual financial statement report
2.3	What are the critical sub-processes in terms of closing for the Group? (ex. Intercompany treatment, valuation processes, Basel 2, aggregation of country level...)
	How is the intercompany profit elimination managed? When?
2.4	How does the Group manage these reconciliations between Risk / liquidity and accounting databases? <i>Is there a unique Financial and Risk DwH to produce regulatory requirements when it comes to Credit Risk and Liquidity?</i>
	How many days to complete these reconciliations?
	Is this process anticipated?
	How does the Group manage to reconcile between statutory and management accounting databases?
2.5	Is the monthly consolidated reporting a complete one? <i>Is it focused only on PnL?</i> <i>Or on PnL and Balance Sheet?</i> <i>Full Financial reporting?</i>
ENABLERS FOR FAST CLOSE	
2.6	Are shared services centres used? How are they organized?
2.7	What type of initiatives has the Group undertaken or is undertaking to compress the reporting process cycle time? Which benefits have been obtained at which cost?
IT PLATFORM	
2.8	To what extent has the Group implemented integrated accounting system across all business units?
2.9	What tool is the Group using for Consolidation? What tool is used for General Ledger?
	Does the Head Office Finance department have a direct access to the individual reporting of entities included in a sub consolidation group?
ORGANIZATION	
2.10	How is organized the Accounting Function (in charge of the closing process) within the Group? Very centralized or decentralized? <i>What are the role & responsibilities of central/ core business/ entities in terms of closing process?</i>

3. Annual Report disclosure process

#	Questions
3.1	How would you qualify the workload on the production and control of appendices to the annual report? <i>Low, moderate, high, excessive?</i>
3.2	Does the Group use a specific workflow tool to create the annual report?
3.3	How would you qualify the automation on the production and control of appendices to the annual report? <i>None, partial, high</i>



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