Regional Data Libraries 2019-03 Release Notes

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Documentation

The latest version of the documentation for these products can always be found at the aPriori Support HelpCenter (requires registration): https://support.apriori.com/hc

Compatibility

aPriori Regional Data Libraries 2019-03 are available for both aPriori Professional 2019 R1 and aPriori Professional 2018 R3 SP1. Please contact aPriori support for the correct files to import into your deployment. This document applies to both aPriori 2019 R1 and aPriori 2018 R3 SP1.

PBCA, Wire Harness and User Guided Costing

All of the economic changes and updates also apply to the updated PCBA, Wire Harness and User Guided Costing Regional Data Libraries. These VPEs use the same labor and overhead data as the standard Regional Data Libraries.

Note: Some features described are part of separately licensed modules and may not be included in all deployments. Please direct questions to your aPriori Account Representative or to aPriori Support.

Economic Updates

This section contains the economic changes that are in the Regional Data Libraries 2019-03.

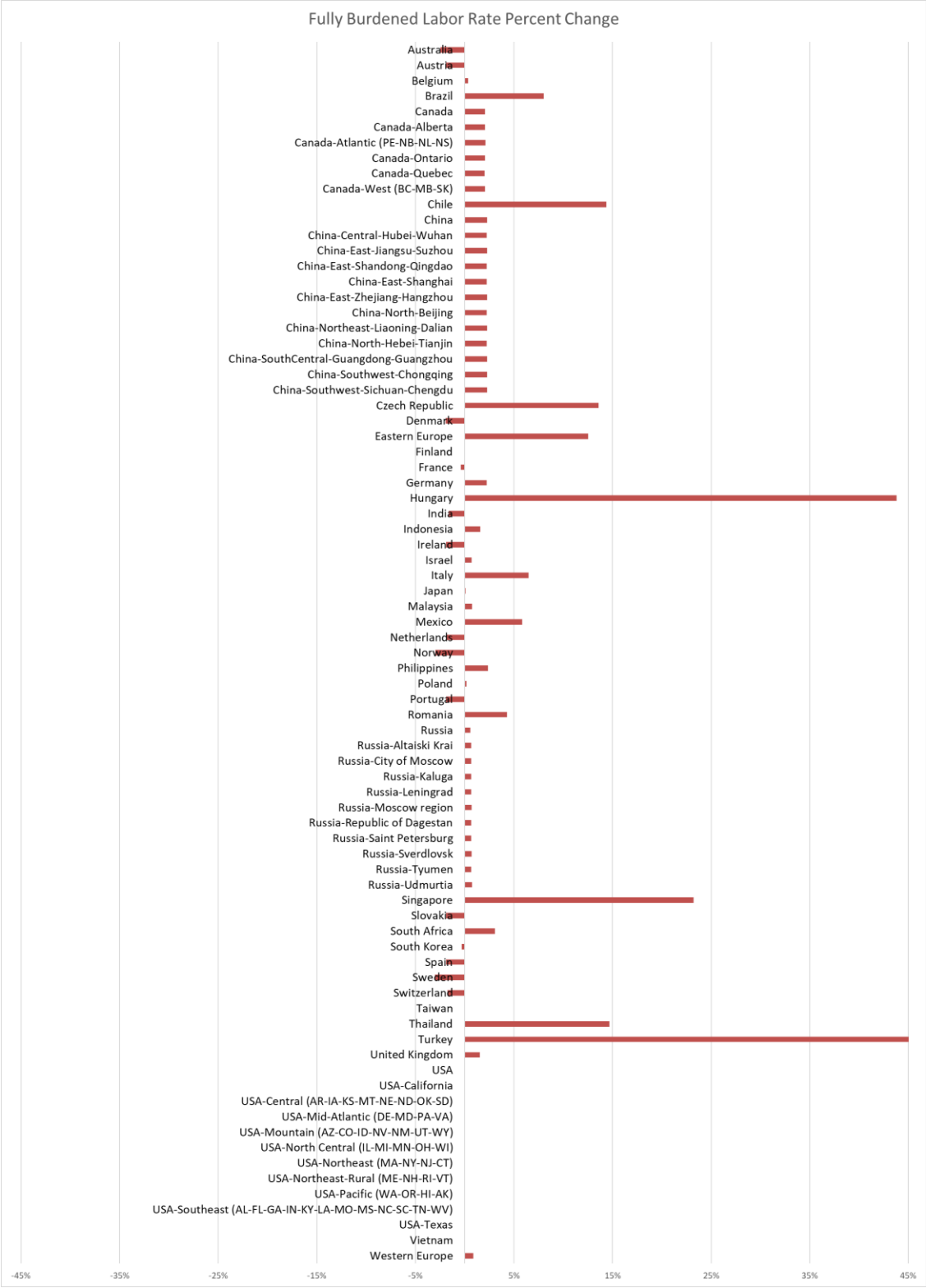
Exchange Rates

Since the Regional Data Libraries 2018-10 release, most currencies have remained relatively stable when compared to the US Dollar except the Brazilian Real and the Turkish Lira, both of which have lost value fairly significantly. These changes are important to understand because labor rates are collected in local currencies and converted to USD, so significant changes in exchange rate can result in significant changes in labor rates.

Currency Name	Currency Symbol	Current Exchange Rate	Percent Change from 2018-10
Brazilian Real	BRL	0.26712	7.9%
Canadian Dollar	CAD	0.75933	-1.0%
Swiss Franc	CHF	0.99894	-1.8%
Chinese Yuan Renminbi	CNY	0.14886	2.3%
Czech Koruna	CZK	0.04427	-1.5%
Danish Krone	DKK	0.15213	-1.9%
Euro	EUR	1.13521	-1.9%
Pound Sterling	GBP	1.30749	1.5%
Hungarian Forint	HUF	0.00358	0.2%
Indonesian Rupiah	IDR	0.00007	1.4%
Indian Rupee	INR	0.01406	-1.5%
Japanese Yen	JPY	0.00903	0.0%
Korean Won	KRW	0.00089	-0.1%
Malaysian Ringgit	MYR	0.24518	0.7%
Mexican Peso	MXN	0.05210	-2.0%
Norwegian Krone	NOK	0.11602	-3.0%
Philippine Peso	PHP	0.01918	2.6%
Polish Zloty	PLN	0.26190	-3.0%
Russian Ruble	RUB	0.01527	4.3%
Shekel (Israel)	ILS	0.27646	0.7%
Singapore Dollar	SGD	0.73949	1.3%
Swedish Krona	SEK	0.10679	-3.0%
Thai Baht	THB	0.03209	5.2%
Taiwan Dollar	TWD	0.03246	-0.1%
Turkish Lira	TRY	0.18790	14.5%
United States Dollar	USD	1.00000	0.0%

Labor Rates

Several regions had major labor rate updates in the 2019-03 release. Hungary, Singapore and Turkey had the most significant increases, which are described later in this section. All changes relative to the 2018-10 release can be seen in the chart below.



Hungary

The Hungarian economy grew significantly in 2018, resulting in increased private consumption. The economic growth combined with public employment programs resulted in an all-time low unemployment rate and very favorable labor conditions, which resulted in a significant increase in wages in the manufacturing sector.
Additionally, there was a bug in the source data used for Regional Data Libraries 2018-10 that has been resolved in Regional Data Libraries 2019-03. Labor rates did increase in Hungary during the time period, but the change observed from 2018-10 to 2019-03 is not only a reflection of market changes. A more realistic comparison is to the Regional Data Library 2018-01 labor rates for Hungary, which do not contain the issue, and from which there is an increase of ~16%.

Singapore

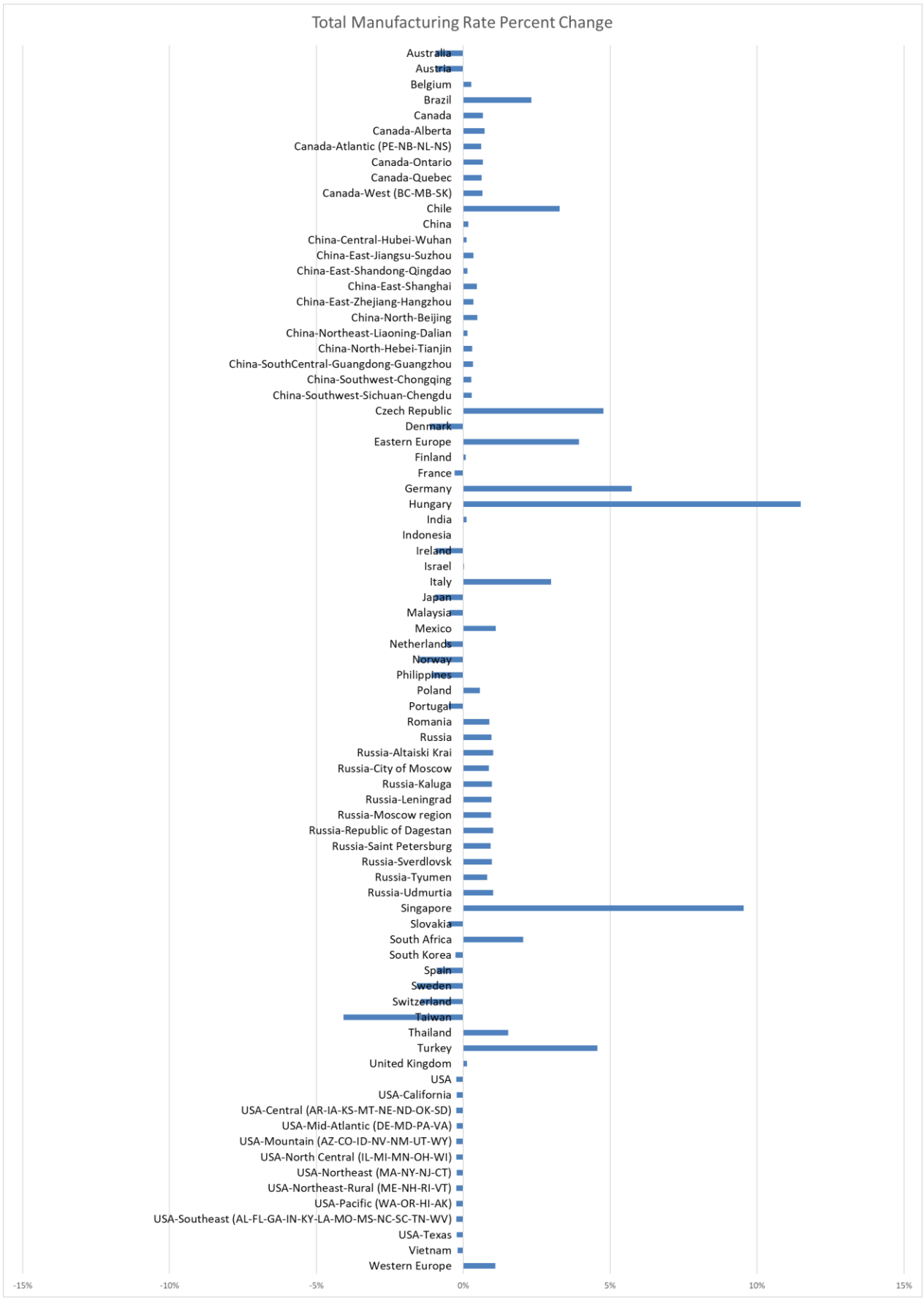
Singapore had good economic development in 2017 which resulted in more job openings and less layoffs. Singapore also saw significant growth in both merchandise exports and the manufacturing sector, especially in electronics and precision engineering. These trends have resulted in a favorable labor market which has led to increased wages in the manufacturing sector.

Turkey

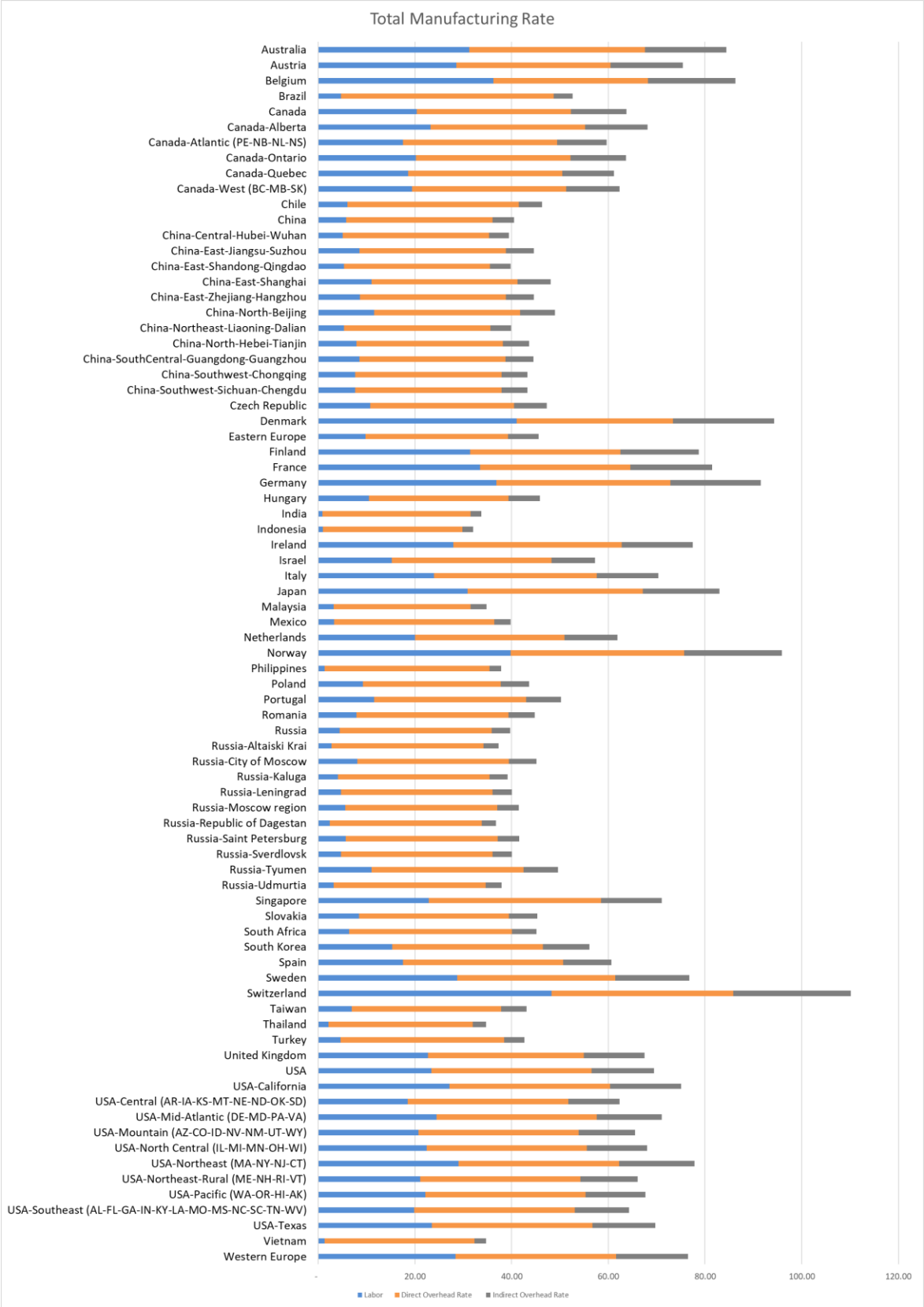
Turkey has had several factors contribute to sharp increases in wages. First, the Turkish economy has grown in the past year, resulting in wage increases. However, in addition to economic growth Turkey has experienced an unstable economy following the elections of 2018, resulting in significant inflation and significant decline of the Turkish Lira's value relative to other currencies. Compared to the previous release of Regional Data Libraries, the Turkish Lira has lost about 14% to the USD, which is reflected in the change in labor rate since aPriori Regional Data Libraries are published in USD.

Total Manufacturing Rates

Direct overhead rates remain mostly unchanged in this release. Indirect overhead rates changed similarly to the labor rate changes because many indirect overhead support staff wage data is the same as the labor wage data. The change in total manufacturing rates (labor rate + direct overhead rate + indirect overhead rate) generally aligns with the changes to labor rates, although the magnitude of the changes is smaller due to the relatively unchanged direct overhead rates. The relative changes from 2018-10 to 2019-03 can be seen in the chart below.


Total Manufacturing Rate Percent Change
Australia
Austria
Belgium
Brazil
Canada
Canada-Alberta
Canada-Atlantic (PE-NB-NL-NS)
Canada-Ontario
Canada-Quebec
Canada-West (BC-MB-SK)
Chile
China
China-Central-Hubei-Wuhan
China-East-Jiangsu-Suzhou
China-East-Shandong-Qingdao
China-East-Shanghai
China-East-Zhejiang-Hangzhou
China-North-Beijing
China-Northeast-Liaoning-Dalian
China-North-Hebei-Tianjin
China-SouthCentral-Guangdong-Guangzhou
China-Southwest-Chongqing
China-Southwest-Sichuan-Chengdu
Czech Republic
Denmark
Eastern Europe
Finland
France
Germany
Hungary
India
Indonesia
Ireland
Israel
Italy
Japan
Malaysia
Mexico
Netherlands
Norway
Philippines
Poland
Portugal
Romania
Russia
Russia-Altaiski Krai
Russia-City of Moscow
Russia-Kaluga
Russia-Leningrad
Russia-Moscow region
Russia-Republic of Dagestan
Russia-Saint Petersburg
Russia-Sverdlovsk
Russia-Tyumen
Russia-Udmurtia
Singapore
Slovakia
South Africa
South Korea
Spain
Sweden
Switzerland
Taiwan
Thailand
Turkey
United Kingdom
USA
USA-California
USA-Central (AR-IA-KS-MT-NE-ND-OK-SD)
USA-Mid-Atlantic (DE-MD-PA-VA)
USA-Mountain (AZ-CO-ID-NV-NM-UT-WY)
USA-North Central (IL-MI-MN-OH-WI)
USA-Northeast (MA-NY-NJ-CT)
USA-Northeast-Rural (ME-NH-RI-VT)
USA-Pacific (WA-OR-HI-AK)
USA-Southeast (AL-FL-GA-IN-KY-LA-MO-MS-NC-SC-TN-WV)
USA-Texas
Vietnam
Western Europe
-15%
-10%
-5%
0%
5%
10%
15%

The chart below represents the average total manufacturing rate for each region in the Regional Data Libraries 2019-03 release.



Material Rates

The material rate changes in this release represent fluctuations in the materials markets. There were no material price assumption changes in this release. In general, the metals market was relatively stable compared to recent past, with Ferrous Metals decreasing ~3% and non-ferrous metals decreasing ~6%, with variation by composition outlined below.

Ferrous Metals			Non-Ferrous Metals	
Ductile Iron	-2%		Aluminum	-8%
Galvanized Steel	-2%		Aluminum Bronze	-5%
Gray Iron	-2%		Brass	-4%
Low- Alloy Steel	-2%		Bronze	-4%
Malleable Cast Iron	-2%		Copper	-4%
Stainless Steel	-6%		Heat Resistant Super Alloys	-11%
Steel	-2%		Titanium	-11%
Unalloyed Steel	-2%		Zinc	-4%
			Zinc-Aluminum	-5%
Total	**-3%**		**Total**	**-6%**

The plastics material market was slightly more volatile, with no discernable trends. The changes in this release are outlined below.

Plastics	
ABS	-6%
Nylon	6%
Polypropylene	-20%
Polystyrene	-6%
Other Plastics	-4%

Low and High Volume Material Rate Coverage

Providing useful and relevant manufacturing data is a top priority for the Regional Data Libraries (RDL) product. To serve more use cases, industries, and ranges of buying power, this release will include two sets of Regional Data Libraries, as was the case with the previous release of Regional Data Libraries.

Why publish two sets of Reginal Data Libraries?

The two sets of RDLs are representing two different levels of purchasing volumes and buying powers. The changes in prices for both sets of 2019-03 RDLs represent the changes in the market since the 2018-10 release.

- Low Volume Regional Data Libraries – aligned with the market factors that were rebuilt for the 2017-08 RDL release.
- High Volume Regional Data Libraries – aligned with the with the market factors and assumptions that were used in the 2016-12 RDL release.

The 2017-08 release introduced a new material price methodology. The material price is built up from base data with market adjustment factors applied to arrive at a final material price per mass. aPriori customers make up a very broad spectrum of material purchasing volumes and buying powers. Therefore, calculating material prices that are appropriate for cost estimation with one set of market assumptions is insufficient.

Which Regional Data Library set should my deployment use?

The intent with the High Volume Regional Data Libraries is to expand material rate coverage for customers in Industrial Machinery, Automotive, and customers who buy significant volumes of steel material. The High Volume set of RDLs is not intended for customers who cost small volumes of titanium and heat resistant super–alloys such as Inconel or Hastelloy.

The intent of the Low Volume RDL is to align more with customers in Aerospace & Defense, Semi-conductor, Tooling, and customers who buy medium to low volumes of steel and aluminum. The Low Volume RDLs are also more appropriate for customers who cost parts made of titanium and heat resistant super–alloys.

	Average Unit Cost High Volume (USD / kg)	Average Unit Cost Low Volume (USD / kg)
Aluminum	4.25	9.99
Heat Resistant Super Alloys	16.48	38.69
Stainless Steel	4.00	9.38
Steel	1.81	4.26
Titanium	24.94	58.55

Please consult with your account teams to determine which set of benchmark material rates align better with your particular business, buying power, and purchasing volumes. Regional Data Library files are distributed by our Support team.

Installation

aPriori Customer Support will provide you with a URL link to the specific update file that is appropriate for your version of aPriori software.

aPriori Regional Data Libraries 2019-03 must be loaded from a computer which has aPriori installed and is on the same Local Area Network (LAN) as the database server. The amount of time the update will take is dependent on the connection to the database and the number of regions to be updated. According to our testing, it will take approximately 90 seconds per VPE when loading to a database on the LAN.

Warning: If you attempt to load the updates from a machine which is not on the same LAN as the database server, the update may take many hours to complete.

aPriori recommends notifying the end users when the update will take place. Users may remain connected to the system during the update. The updates are effective immediately and the end users may notice cost differences as the updates happen.

1. Download the package provided by aPriori Customer Support to a local folder. This folder should contain the following content:
    - License file containing access to new regions –.apz file
    - A baseline update file - baseLineUpdate-<*release-version*>-(2019-03).apx
    - Regional Data Libraries – 79 files with extension *.vpe.zip
2. Import the new license file (the user who completes this step must be configured as a System Administrator in the aPriori environment)
3. Import the baseline update file (the user who completes this step must be configured as a VPE Manager in the aPriori environment)
    - Launch the VPE Toolset
    - Click **File > Import > Import aPriori Baseline Update…**
    - Navigate to and select the baseline update file and then click **Open**.

    Note: If you downloaded the file using Internet Explorer, the original file extension of .apx may have been changed to .zip. By default, the file browser only displays files with .apx extensions, so you will need to either select to view all files, or change the file extension of the update back to .apx. Either will work.

    - Click **OK** at the confirmation
    - While the update is being loaded, you will see the progress in the lower right corner of the **VPE Manager Toolset**.
    - When it is finished, a message will pop up confirming that the update was successful. Click **OK**.
4. Restart aPriori or refresh your database connection
5. Import the Regional Data Libraries (the user who completes this step must be configured as a VPE Manager in the aPriori environment)

Note: The previous steps must be completed before completing the steps below. The process below can also be done file by file using the existing VPE Import capability in the VPE Toolset (**File>Import>VPE…**), it is just not recommended because it requires many clicks.

- Launch the VPE Toolset
- Click **File > Import > Multiple VPEs…**
- Follow the steps in the dialog to import the VPEs from the directory you selected
    - Select a local directory that contains all of the regional data libraries (*.vpe.zip* files)
    - Select the VPE files you wish to import
    - Click **OK**
- While the update is being loaded, you will only see a progress bar in the bottom right hand corner of the main UI, not the VPE Manager UI. The VPEs are being imported, but please be aware that depending on the number of selected Regional Data Libraries and the speed of your connection this may be take several hours.
- When the process is finished, a message will pop up confirming that the update was successful. Click **OK**.

Contacting Support

The aPriori support team will help deliver the appropriate Regional Data Library files to aPriori deployments and VPE managers.

To contact aPriori Customer Support, use one of the following options:

Internet Web site:	http://www.apriori.com/support
Email:	support@apriori.com