

US Rates Watch

Follow the money: FHLBs, MMF, & Fed May 30 update

Money map: FHLBs, MMF, & Fed

Key takeaway: banking system stress remains elevated, though the rate of increase in funding need has slowed. FHLB net issuance remained net positive last week but with Fed funds volumes still elevated and borrowing from the Fed flat, it is not necessarily a sign of higher bank funding needs.

FHLB activity: According to our estimates, FHLB net issuance picked up \$11b last week, averaging ~\$3b/day. Fed funds volumes have also remained elevated (Exhibit 5), implying FHLBs may be lending out excess cash beyond what they are lending via advances. FHLB typically builds liquidity in anticipation of large maturities in coming weeks or even months, therefore higher FHLB issuance may not reflect bank funding needs.

Money market funds: According to Crane data, MMF AUM grew \$17b on the week ending Thursday, May 25 (Exhibit 7), with inflows primarily into Gov't institutional funds but outflows out of prime institutional funds.

Outflows for prime and Treasury-only funds is typical leading up to a debt limit X-date.

ON RRP: take-up declined \$87bn on the week ending Friday, May 26 (Exhibit 9). The largest outflow was on May 25th of \$53b, likely driven by the end of a GSE float period.

We expect MMF take-up at the ON RRP to increase heading into the June 1 X-date as MMFs typically want to avoid bills maturing following projected X-dates. Once the debt limit is resolved, we expect bill issuance to grow significantly to refill the TGA, which will likely drain the Fed's ON RRP (see [Bill supply surge FAQ](#)).

Fed data: Fed H.8 data for the week ending May 17th showed bank balance sheets grew by \$24b, led by large domestic banks (Exhibit 11). Large banks largely accounted for the growth in reserves that week, with cash balances increasing by \$73bn. However, large bank balance sheets are still \$31b lower MTD. Deposits grew across banks on the liability side, with declines in borrowing except for foreign bank. The drop in securities holdings suggests that banks may be less inclined to roll over maturing securities perhaps on the brink of debt limit volatility.

The Fed's H.4.1 data for the week ending May 24th showed borrowing shift from discount window to the bank term funding program. Reserves declined \$29b and TGA down \$19b, partially offset by a \$37b increase in the Fed's ON RRP take-up on the week, likely driven by GSE float. We recently updated our Fed balance sheet forecast in [Fed balance sheet forecast: May update](#)

Note: Our "Follow the Money" publication has shifted to a weekly timeline, but we will continue to make updates on an ad hoc basis as necessary

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Refer to important disclosures on page 7 to 9.

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30 May 2023

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Abbreviations:

BTFP: bank term funding program
CB: Central bank
DW: discount window
FHLB: Federal Home Loan Banks
FIMA: Foreign and international monetary authorities
Gov't: government
GSE: Government sponsored enterprises
Inst'l: institutional
MMF: Money market funds
ON RRP: Overnight reverse repo facility
P&I: principal & interest
TGA: Treasury General Account
w/w: week on week
DL: debt limit
WTD: week to date
DN: Discount Note

Exhibit 1: Data on FHLB issuance + ON RRP / MMF flows (\$bn)

FHLB net issuance is offset by ON RRP decline & MMF inflows; funding markets are working

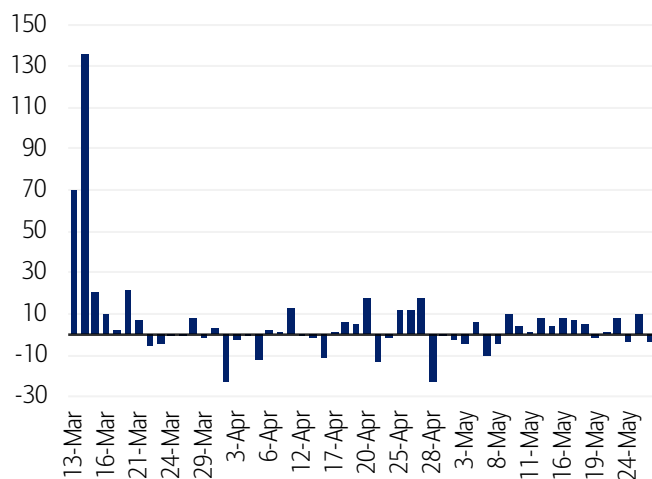
FHLBs	15-May	16-May	17-May	18-May	19-May	22-May	23-May	24-May	25-May	26-May
Total	4.10	8.24	6.53	5.36	-1.35	0.47	8.25	-3.29	10.15	-3.76
DN outstanding	480.70	485.75	482.89	486.84	475.02	476.20	487.22	488.63	494.83	486.39
Money Markets	15-May	16-May	17-May	18-May	19-May	22-May	23-May	24-May	25-May	26-May
ON RRP Total	2,220.93	2,203.21	2,213.68	2,238.27	2,276.72	2,275.31	2,256.69	2,250.71	2,197.64	2,189.68
ON RRP Change (d/d)	-8.27	-17.71	10.46	24.59	38.45	-1.41	-18.62	-5.98	-53.07	-7.96
MMF Flows	11.25	-2.04	4.50	21.81	10.68	13.04	9.63	-10.89	5.64	
MMF Inflow - RRP Change	19.52	15.68	-5.96	-2.78	-27.77	14.44	28.26	-4.91	58.71	

Source: BofA Global Research, Bloomberg, FHLB Office of Finance, Crane Data. Note: For FHLB data we use estimates of daily net issuance, we adjust the month-end DN outstanding number to reflect FHLB OF

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Exhibit 2: Daily net FHLB debt issuance (\$bn)

FHLB daily debt issuance has slowed

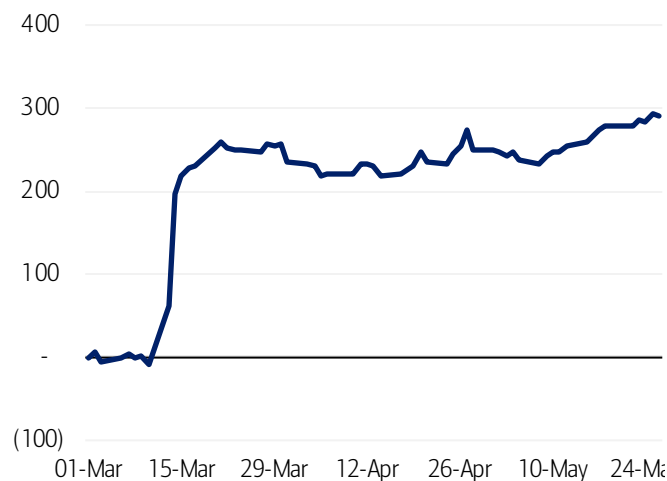


Source: Bloomberg, FHLB Office of Finance. Note: we use estimates of daily net issuance

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Exhibit 3: Cumulative growth in FHLB debt since March 1 (\$bn)

Daily FHLB cumulative debt is roughly \$283bn higher since March 1

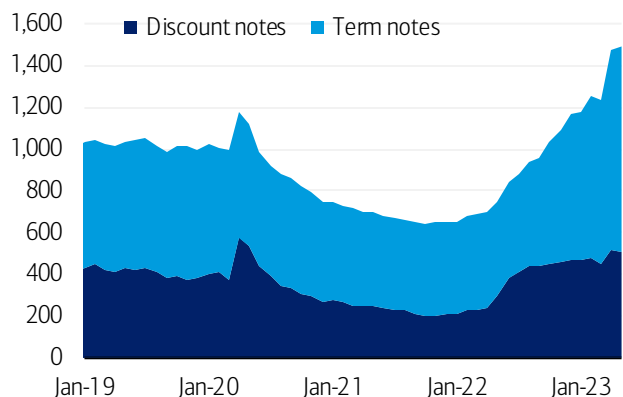


Source: Bloomberg, FHLB Office of Finance. Note: we use estimates of daily net issuance

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Exhibit 4: FHLB debt issuance (\$bn)

Higher FHLB debt issuance leading to more MMF investment

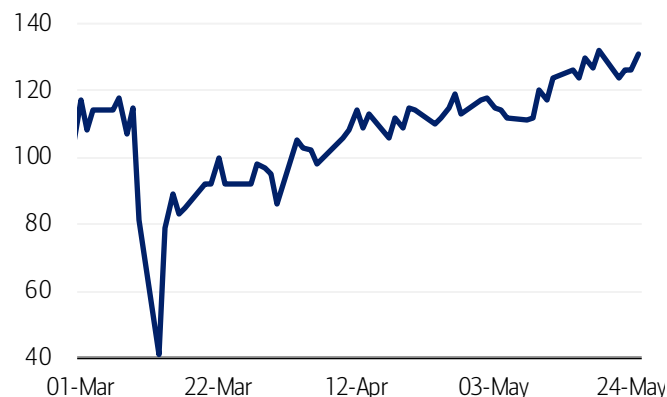


Source: BofA Global Research, FHLB Office of Finance

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Exhibit 5: Fed funds volumes (\$bn)

Fed funds volumes increased \$5bn from prior day

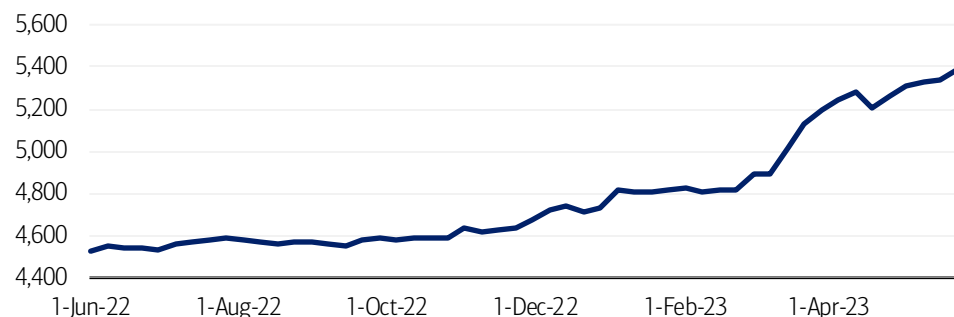


Source: FRBNY

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Exhibit 6: MMF AUM (\$bn)

MMFs saw \$46.67bn in flows from prior week



Source: ICI, Bloomberg

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Exhibit 7: ICI Money Market Fund AUM (\$bn)

MMF aum rose \$117bn from prior week

Dates	Total	Prime	Gov't	Tax exempt	Retail	Institutional	Prime Institutional	Gov't Institutional	Tax-exempt Institutional	Prime Retail	Gov't Retail	Tax-exempt Retail
5/10/2023	5,328	785	4,430	113	1,937	3,391	260	3,120	11	525	1,310	102
5/17/2023	5,342	789	4,440	113	1,952	3,390	257	3,122	11	532	1,318	102
WoW Change	14	4	10	0	14	-1	-3	2	0	7	7	0
Change since 3/8	448	-5	456	-3	125	323	-12	337	-2	7	120	-1

Source: ICI, Bloomberg

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Exhibit 8: Daily Crane MMF AUM (\$bn)

MMF AUM fell \$8b from prior day, mostly out of gov't institutional

Dates	Total	Prime	Gov't	Tax exempt	Retail	Institutional	Prime Institutional	Gov't Institutional	Prime Retail	Gov't Retail
5/19/2023	5,795	1,195	4,482	118	1,892	3,785	658	3,127	537	1,355
5/22/2023	5,808	1,195	4,495	118	1,892	3,799	658	3,141	538	1,354
5/23/2023	5,818	1,195	4,505	118	1,894	3,806	656	3,150	538	1,356
5/24/2023	5,807	1,197	4,492	118	1,895	3,794	657	3,136	539	1,356
5/25/2023	5,812	1,194	4,501	117	1,899	3,796	654	3,142	540	1,359
DoD Change	6	-3	9	0	4	2	-4	6	1	3
WoW change	28	-3	32	-1	10	19	-7	27	5	5

Source: Crane Data

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Exhibit 9: ON RRP take-up (\$bn)

ON RRP take-up decreased -\$7.96bn from prior day

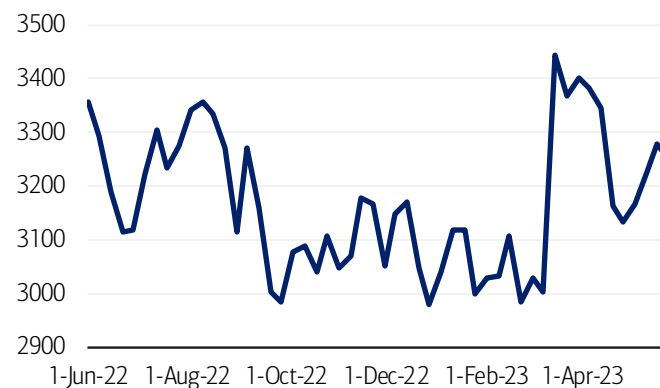


Source: FRBNY

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Exhibit 10: Fed reserve balances outstanding (\$bn)

Change in reserve balance from prior week was -\$29.22bn



Source: Federal Reserve

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Exhibit 11: US Commercial Bank balance sheets, selected assets & liabilities (\$bn)

Domestic banks saw deposits increase but borrowings declined

		Total	Assets						Liabilities			
			Cash	UST & Agy	MBS	Repo & FF	Loans & Leases	Other	Deposits	Borrowings	Net due to related foreign offices	Other
All	5/17/2023	22911	3320	1522	2607	633	12099	2730	17133	2489	258	3031
Banks	1w Chg	24	54	-22	-4	1	2	-8	33	25	-29	-6
	1m Chg	58	124	-22	-11	32	31	-96	-80	86	-1	53
	YTD Chg	-65	225	-131	-166	32	-6	-18	-813	634	-12	125
Domestic	5/17/2023	19865	2008	1411	2582	281	11076	2507	15890	1479	-381	2876
Banks	1w Chg	32	68	-18	-4	-10	2	-7	25	-10	18	-1
	1m Chg	17	69	-27	-10	28	40	-82	-66	21	2	61
	YTD Chg	-137	139	-136	-154	-33	29	19	-741	496	-42	151
Large	5/17/2023	13225	1523	1121	1948	242	6682	1709	10659	912	-411	2066
Banks	1w Chg	28	73	-18	-5	-8	-4	-10	21	-4	19	-9
	1m Chg	-31	34	-28	-13	26	-3	-46	-52	5	4	12
	YTD Chg	-29	100	-107	-13	-22	-10	23	-450	325	-36	132
Small	5/17/2023	6639	485	290	634	39	4394	798	5231	568	30	810
Banks	1w Chg	3	-4	0	1	-2	7	2	4	-6	-2	7
	1m Chg	48	35	1	3	2	42	-36	-14	16	-2	48
	YTD Chg	-108	39	-29	-142	-10	39	-4	-290	171	-7	18
Foreign	5/17/2023	3046	1312	111	25	352	1023	223	1243	1009	639	155
Banks	1w Chg	-8	-14	-4	0	11	0	-1	8	35	-47	-4
	1m Chg	41	56	6	-1	4	-9	-14	-14	66	-3	-8
	YTD Chg	72	85	5	-12	64	-35	-37	-72	139	30	-26

Source: Federal Reserve H8

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Exhibit 12: Fed balance sheet, selected assets & liabilities (\$bn, Wednesday comparison data)

Drain in ON RRP and TGA has flowed into reserves

Assets							Liabilities						
Dates	Securities	Repo	Discount Window	BTFP	FDIC bank credit extension	CB Liquidity Swaps	Currency	Foreign RRP	ON RRP	TGA	Reserves	Total	
3/8/2023	7,948	0		5	0	0	2,308	367	2,193	312	3,004	8,392	
5/17/2023	7,771	0		9	87	208	2,334	385	2,214	68	3,280	8,507	
5/24/2023	7,768	0		4	92	193	2,337	360	2,251	49	3,251	8,486	
Change from 5/17-5/24	-4	0		-5	5	-16	4	-25	37	-19	-29	-20	
Change from 3/8-5/24	-181	0		0	92	193	30	-7	57	-262	247	95	

Source: BofA Global Research, Federal Reserve

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Appendix

Exhibit 13: Daily FHLB debt issuance estimates (\$mn)

We estimate daily issuance from Bloomberg and FHLB Office of Finance website. Data is subject to revisions

	O/N	Term DN	Auction	Maturing DN	FRNs	Callable	Bullets	Maturing	Called	Total
3/1/2023	14,450	6,550	-	(21,685)	1,500	1,317	603	(2,794)	-	(59)
3/2/2023	17,964	4,656	5,650	(17,127)	530	114	789	(6,685)	(15)	5,876
3/3/2023	14,476	3,414	-	(30,161)	1,000	120	2,035	(1,949)	-	(11,065)
3/6/2023	14,930	4,704	-	(18,998)	3,790	754	1,023	(2,335)	-	3,868
3/7/2023	14,439	3,751	4,915	(17,260)	-	170	284	(1,000)	-	5,298
3/8/2023	13,485	7,293	-	(31,073)	-	5,095	212	-	-	(4,989)
3/9/2023	15,250	3,552	3,360	(16,869)	-	585	1,135	(3,980)	-	3,032
3/10/2023	16,799	3,740	-	(28,651)	2,000	547	58	(5,206)	-	(10,714)
3/13/2023	67,500	23,039	-	(22,798)	2,810	2,035	347	(2,750)	-	70,183
3/14/2023	50,200	61,770	6,445	(71,183)	91,819	495	-	(3,450)	-	136,096
3/15/2023	24,100	40,529	-	(65,448)	21,052	1,685	677	(1,889)	-	20,705
3/16/2023	14,600	9,988	3,500	(29,369)	10,850	636	132	(830)	-	9,507
3/17/2023	11,585	7,880	-	(24,676)	11,500	175	39	(4,583)	-	1,920
3/20/2023	12,400	7,341	-	(16,852)	21,712	413	31	(3,650)	-	21,395
3/21/2023	9,604	5,301	3,675	(15,224)	7,312	227	31	(3,545)	-	7,381
3/22/2023	11,250	5,916	-	(24,402)	2,500	237	32	(1,000)	-	(5,468)
3/23/2023	9,780	3,456	5,115	(16,546)	-	105	81	(6,400)	-	(4,409)
3/24/2023	18,355	1,650	-	(23,633)	4,900	30	74	(1,580)	-	(204)
3/27/2023	24,070	1,464	-	(33,130)	9,150	4,188	295	(6,323)	-	(285)
3/28/2023	19,223	4,277	280	(23,576)	2,200	8,744	75	(3,247)	(60)	7,917
3/29/2023	17,095	1,957	-	(29,865)	1,000	9,924	162	(1,881)	(30)	(1,639)
3/30/2023	15,250	4,213	4,700	(20,936)	-	3,498	129	(3,202)	(210)	3,442
3/31/2023	8,000	964	-	(32,122)	-	-	-	-	-	(23,158)
4/3/2023	9,620	2,421	-	(16,456)	-	7,642	96	(6,175)	(110)	(2,962)
4/4/2023	11,440	1,453	4,120	(12,553)	-	15	20	(5,681)	-	(1,186)
4/5/2023	9,800	2,712	-	(23,492)	-	492	144	(2,172)	-	(12,516)
4/6/2023	9,300	3,140	4,275	(12,694)	-	1,030	44	(3,011)	(10)	2,073
4/10/2023	9,600	6,010	-	(19,286)	-	5,213	520	(1,485)	-	572
4/11/2023	9,600	7,455	5,255	(11,553)	-	2,350	258	(200)	-	13,166
4/12/2023	16,155	5,059	-	(23,974)	50	1,723	149	(330)	-	(1,168)
4/13/2023	2,750	3,625	2,935	(10,918)	-	751	126	(1,100)	(190)	(2,021)
4/14/2023	11,041	3,882	-	(24,032)	378	1,040	55	(3,690)	-	(11,327)
4/17/2023	11,896	5,142	-	(19,320)	-	3,605	428	(1,400)	(120)	231
4/18/2023	13,127	4,043	3,935	(16,850)	500	2,502	151	(1,722)	-	5,686
4/19/2023	16,014	8,047	-	(25,694)	1,000	5,460	187	-	-	5,014
4/20/2023	18,737	6,788	7,240	(22,421)	1,000	6,882	460	(1,317)	-	17,368
4/21/2023	15,984	2,654	-	(30,101)	2,000	3,137	84	(7,225)	(170)	(13,637)
4/24/2023	17,600	5,499	-	(23,041)	-	4,645	30	(6,005)	(434)	(1,706)
4/25/2023	15,850	6,807	11,335	(19,746)	2,550	1,253	130	(6,713)	-	11,466
4/26/2023	26,838	6,482	-	(27,442)	-	5,780	224	-	(335)	11,548
4/27/2023	19,800	6,206	7,000	(21,528)	6,480	4,140	80	(3,600)	(620)	17,958
4/28/2023	15,512	3,584	-	(44,794)	911	3,430	80	(1,424)	(130)	(22,831)
5/1/2023	18,904	2,879	-	(27,040)	11,497	1,047	148	(7,853)	-	(419)
5/2/2023	19,801	4,857	3,185	(24,907)	-	57	165	(6,105)	-	(2,946)
5/3/2023	23,273	4,378	-	(38,071)	5,913	5,208	261	(6,020)	-	(5,059)
5/4/2023	23,721	5,373	6,930	(31,128)	5,950	1,955	232	(6,989)	-	6,044
5/5/2023	18,400	2,790	-	(31,772)	1,677	55	124	(2,072)	-	(10,798)
5/8/2023	18,857	6,822	-	(31,657)	3,655	832	210	(3,275)	(15)	(4,572)
5/9/2023	20,018	4,320	7,200	(23,834)	4,505	110	322	(2,650)	(40)	9,951
5/10/2023	21,769	2,506	-	(29,880)	9,708	1,521	259	(1,417)	(80)	4,387
5/11/2023	19,532	2,132	5,050	(26,533)	1,400	80	115	(1,540)	(15)	221
5/12/2023	18,555	5,628	-	(30,524)	7,825	6,165	20	(130)	-	7,539
5/15/2023	18,014	7,593	-	(24,965)	3,000	411	144	(100)	-	4,096
5/16/2023	16,384	10,516	7,595	(29,449)	2,905	315	115	(100)	(45)	8,236
5/17/2023	15,800	6,278	-	(24,935)	10,720	143	67	(1,545)	-	6,528
5/18/2023	13,206	4,494	6,110	(19,859)	2,054	1,105	186	(1,938)	-	5,357
5/19/2023	11,776	2,766	-	(26,366)	9,824	1,380	145	(850)	(25)	(1,350)
5/22/2023	11,935	6,178	-	(16,931)	1,400	3,405	70	(5,570)	(20)	467
5/23/2023	13,825	7,034	7,085	(16,926)	2,845	298	276	(6,100)	(85)	8,251



Exhibit 13: Daily FHLB debt issuance estimates (\$mn)

We estimate daily issuance from Bloomberg and FHLB Office of Finance website. Data is subject to revisions

	O/N	Term DN	Auction	Maturing DN	FRNs	Callable	Bullets	Maturing	Called	Total
5/24/2023	16,049	9,590	-	(24,231)	-	287	33	(4,780)	(238)	(3,291)
5/25/2023	15,050	8,877	8,605	(26,328)	6,257	135	31	(2,478)	(3)	10,146
5/26/2023	14,857	2,792	-	(26,090)	12,890	155	70	(8,010)	(420)	(3,757)

Source: Bloomberg, FHLB Office of Finance. Note: We use estimates of daily FHLB debt issuance

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